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Original Articles

IMMEDIATE EXAMINATION OF UTERINE MUCOSA AND MYOMATOUS NODULES AFTER HYSTEROMYOMECTOMY TO EXCLUDE MALIGNANT DISEASE.*

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BALTIMORE.

It has long been known that sarcomatous changes may occur in myomata. In 1860[1] Virchow gave a very clear account of the gross and histologic pictures in such cases. In 1872[2] Chrobak drew attention to this class of cases, and in 1887[3] Ritter gave a full survey of the literature up to that date. The question was fully discussed by Williams,[4] as well as by Schreher,[5] in 1894; and in 1895 by L. Pick.[6] The article of Gessner,[7] published in 1899, is the most exhaustive that we possess, and will well reward a thorough study. Among the more recent and lucid articles is that of Wier,[8] published in 1901, and that of Jacobi and Wollstein,[9] which appeared in 1902.

But it was the excellent paper by Charles P. Noble, that first thoroughly aroused gynecologists to an appreciation of the possible danger of allowing myomata to remain year after year without operative interference. His paper was closely followed by those of Hunner and McDonald. In going over the large number of myoma cases that we have had at the Johns Hopkins Hospital I have been surprised at the number of instances in which myomata were associated with carcinoma either of the cervix or body, and at the relatively frequent pictures of sarcomata developing in myomatous tumors. All these cases will shortly be reported in detail by Dr. Kelly and myself.

These findings have a very practical bearing, and at the New Orleans session of the American Medical Association in May, 1903, I advised opening the uterus immediately on its removal as a routine procedure to see if by any chance carcinoma of the body existed.[10] Since that meeting I have seen several cases that indicate a still further precaution, namely, that we not only carefully explore the uterine cavity at once, but also examine the myomatous nodules. Had such a precaution been adopted in the present case there is a strong probability that the patient might have been saved. The uterus on removal showed nothing unusual. On opening the uterine cavity the mucosa was found everywhere intact and apparently normal. Further examination in the operating room was not undertaken and the specimen was sent to the laboratory. There a longitudinal section was made through the tumor and some degenerative changes were noted, but through an unfortunate circumstance no further examination was made. It was not until after the second operation, more than two years later, when we found a sarcoma springing from the cervical stump, that the original tumor was again examined. The most casual glance showed not only areas of hyaline degeneration in the myoma, but also round and irregular areas of typical sarcoma.

Supravaginal hysterectomy supposedly for simple interstitial and subperitoneal myomata. Two years later sudden collapse due to hemorrhage from a sarcoma developing from the cervical stump (Fig. 1). Re-examination of the original tumor showed typical sarcomatous transformation of the myoma (Fig. 2). Later intestinal obstruction; artificial anus with complete control. Death eight months after the second operation.

Patient.—Mrs. W., aged 42, was seen in consultation on Jan. 22, 1903. For several years the menstrual periods have been exceedingly free. From time to time she has been treated for dyspepsia and for some cardiac lesion, but not until recently has any abdominal enlargement been detected. She is well nourished, but is exceedingly pale. The mucous membranes are blanched and the hemoglobin is 30 per cent. On vaginal examination the cervix is found to be normal. Filling the vaginal vault and extending half way to the umbilicus is an irregular myomatous uterus. Above and to the right is a globular mass the size of a kidney. One of the most interesting phenomena is a bruit felt by the examining finger along the course of the left uterine vessels.

Operation.—The uterus was brought up without much difficulty and the large mass felt in the region of the liver proved to be a subperitoneal and pedunculated myoma. The uterus was removed from left to right. The left tube and ovary were not disturbed. The patient stood the operation well and lost very little blood. Phlebitis developed some days after operation, but did not retard her progress very much. Within a month her color had returned, and in less than three months she was in perfect health. I saw her on Jan. 1, 1905, and she was in excellent condition.

Second Operation.—Feb. 17, 1905. The patient felt perfectly well and went to market yesterday morning. About 1 p. m. she was taken with pain in the lower abdomen, and a little later on almost fainted while at stool. Dr. Gorter was called to see her and advised immediate removal to the hospital.

On examination, under anesthesia, we found the pelvis partly filled by a mass about the size of a small cocoanut. This apparently involved the left side more than the right. The left ovary having been saved at the previous operation, we thought

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* Read before the Johns Hopkins Hospital Medical Society.

1. Virchow: Die Krankhaften Geschwülste, vol. III, p. 201.
2. Chrobak: Arch. f. Gynäk., vol. IV.
3. Ritter: Inaugural Dissertation, "Ueber d. Myosarkom," Berlin, 1887.
4. Contributions to the Histology and Histogenesis of Sarcoma of the Uterus. J. Whitridge Williams, American Jour. or Obstetrics, 1894, vol. xxix, No. 6.
5. Schreher: "Ueber d. Complication von Uterusmyom mit secundärer sarcomatöser Degeneration," Diss. Inaug., Jena, 1894.
6. Pick, L.: "Zur Histogenese und Classification der Gebärmuttersarcome," Archiv. f. Gynäkologie, 1895, vol. xlviii, p. 24; and "Zur Lehre vom Myoma sarcomatosum und über die sogenannten Endotheliome der Gebärmutter," Arch. f. Gynäkologie, 1895, vol. xlix, p. 1.
7. Gessner: Veit's Handbuch der Gynækologie, 1899, vol. III, 2d half, p. 957.
8. Wier, Wm. H.: "Muscle-cell Sarcomata of the uterus," Amer. Jour. of Obstetrics, 1901, vol. xliii, p. 618.
9. Jacobi, Mary Putnam, and Wollstein, Martha: Amer. Jour. of Obstetrics, 1902, vol. xlv, p. 218.
10. Thomas S. Cullen: "Sarcomatous Transformation of Myomata," Journal A. M. A., Aug. 8, 1903.

that this tumor was certainly ovarian in origin. On opening the abdomen the left ovary was found to be perfectly normal, but projecting from the stump of the cervix and extending down between the cervix and rectum was a definite sarcomatous nodule fully 10 cm. across (Fig. 1). This was somewhat lobulated. It had been slightly lacerated and free bleeding had occurred. We removed at least a quart and a half of free blood and clots from the abdominal cavity. Her sudden discomfort was evidently due to partial tearing of the growth. We were able to peel the growth out to a great extent, but it was impossible to remove it in its entirety.

The left lobe of the liver was sharp, the right lobe very blunt and thickened. We thought that we were dealing with a hepatic metastasis, but on continuing the incision upward found there was merely thickening of the liver. The omentum was free. The appendix was removed.

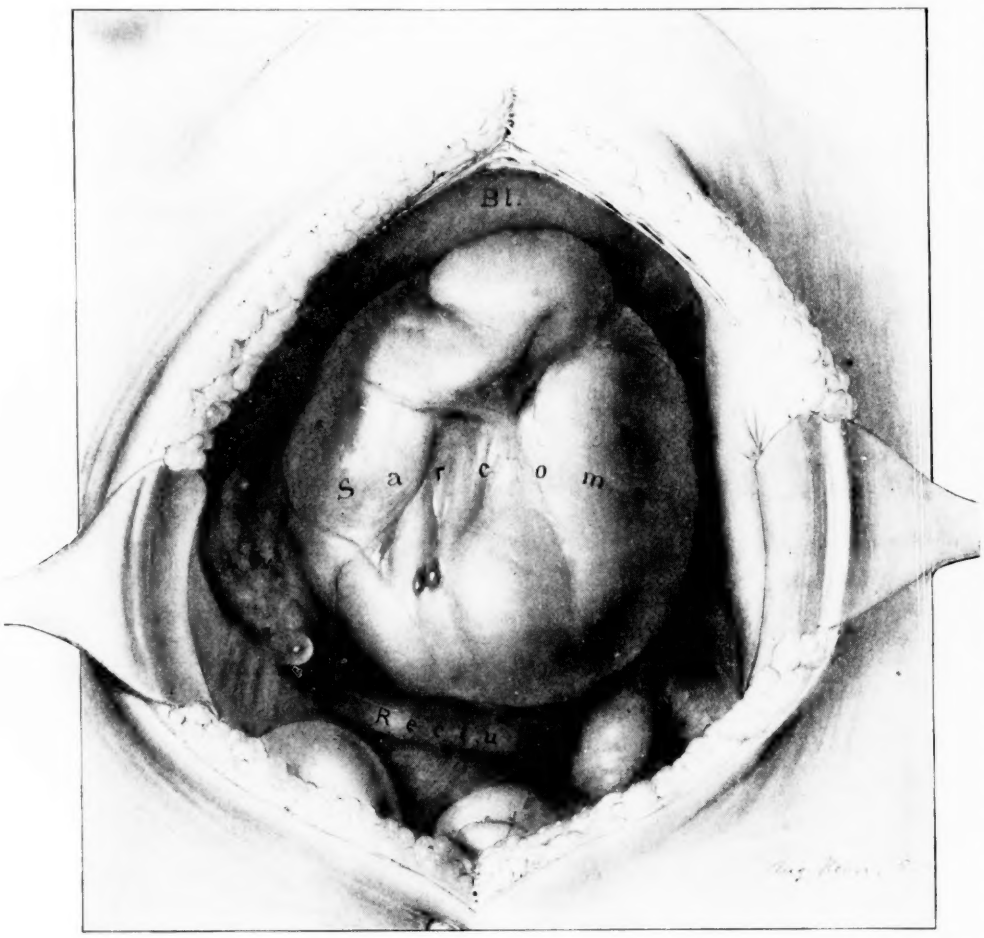

Fig. 1.—Sarcoma developing in the cervical stump. (Gyn.-Path. No. 8370.) The pelvis is viewed from above. Rising from the pelvis between the bladder and the rectum is a smooth lobulated growth presenting a somewhat scarred appearance. To the left is the intact and normal left ovary. The right appendages were removed at the first operation.

The condition is particularly interesting when we remember that the uterus had been removed fully two years before and that for two years the patient had remained perfectly well.

Postoperative History.—Patient was readmitted to the Church Home Aug. 21, 1905. For the preceding four or five weeks she had had great difficulty in securing an evacuation of the bowels. On examination we found that the pelvis was practically filled with a new growth and that it would be necessary to make an artificial anus. The bladder showed definite involvement by the growth and the urine contained large quantities of blood. I made an incision through the left rectus, brought out the sigmoid flexure, cut it in two, closed the lower end, brought the upper end out through the rectus, passed it outward beneath the sheath of the rectus for about an inch and a half, then made a longitudinal section through the sheath of the rectus and through the fascia to the skin, attaching the bowel to the skin. The bowel, therefore, was brought upward, then outward and then upward again. The patient experienced a great deal of relief. Her bowels moved once or twice a day, but she had practically absolute control, as there was no escape of fecal matter except at stool. She improved considerably. Occasionally there was some discomfort from the rectal tenesmus due to the ever-increasing growth pressing on the remaining portion of the rectum; otherwise she was comfortable. She remained in the hospital until about the first of October. During the last two weeks of her life she became much weaker and died Oct. 30, 1905.

Description of the Sarcoma Developing from the Cervical Stump.—The specimen (Fig. 1) consists of a mass of tissue 10 by 8 by 5 cm. It is somewhat lobulated, is rather smooth and on its under surface has a basal attachment, extending over an area of about 5 by 5 cm. The tissue is of brain-like consistency, yellowish white in color. It tears with the utmost readiness. On section the mass is found to contain a large irregular area of hemorrhage. At one point is a cystic space 2 by 1.5 cm. This is divided by trabeculae into smaller spaces and is filled with blood clots. The general character of the growth is clearly evident without histologic examination.

Histologic Examination. The tumor is found to be made up of a sea of cells. Most of these cells have oval, vesicular nuclei and bear a striking resemblance to those of muscle fibers. The cells themselves are spindle-shaped, with deeply staining nuclei two or three times the natural size. Others are irregular and also stain deeply. Again we have masses of protoplasm containing five or six deeply staining nuclei. At other points there are giant cells where the nuclei are not over one-third the usual size. In places are seen spindle cells undergoing division. There are large irregular plaques of protoplasm containing fragmented nuclei and cells showing typical nuclear figures. The nucleus itself is sometimes dividing into five or six young nuclei. The blood vessels are large and abundant. The majority of them appear to be veins. Some are filled with thrombi, and the tumor cells are gradually obliterating them. In fact, dividing tumor cells can be demonstrated lying free in such blood vessels. In some places the tissue is much rarified, and in such areas giant cells are particularly abundant. The growth is essentially a spindle-celled sarcoma which shows a marked tendency to giant cell formation.

Description of the Original Tumor.—The specimen (Fig. 2) consists of a globular uterus, approximately 18 cm. in diameter. It is smooth and glistening. On the surface one or two nodules can be detected. Attached to the right cornu is a kidney-shaped subperitoneal nodule 13 cm. in length and 8 cm. broad. It is attached by a pedicle, 2.5 by 1.5 cm., and is freely movable. The uterine cavity is 17 cm. in length and is markedly convex, owing to the fact that the growth projects inward from the posterior wall. The mucosa, on the whole, looks normal, but is atrophic. Near the fundus it has undergone in some places almost complete atrophy, the growth in the posterior wall shining through.

The greater enlargement of the uterus is due to a circular nodule, 13.5 cm. in diameter, occupying the posterior wall. This nodule is almost spherical. The central portion has, in part, undergone typical hyaline degeneration, as is evidenced by large and small spaces traversed by delicate trabeculæ. On careful examination there are several areas presenting a homogeneous spongy appearance. These form a part of the myomatous tissue. They vary from 1 to 4 cm. or more in diameter, are irregular in their distribution, and have undoubtedly developed from the myomatous tissue. They give the characteristic appearance of sarcoma, and are distributed throughout the solid portion of the tumor, being also intermingled with areas of hyaline degeneration. Macroscopically one is able to diagnose with absolute certainty that we have a sarcoma developing in the myoma. The uterine wall posterior to the tumor varies from 1 to 1.5 cm. in thickness, and in some places there is a covering from 2 to 5 mm. of uterine muscle separating the growth from the mucosa.

Fig. 2.—Sarcomatous transformation of a uterine myoma. Supravaginal amputation with return of the growth in the cervical stump. (Natural size.) (Gyn.-Path. No. 6421.) The picture represents a longitudinal section through the entire uterus. *a*, Upper limit of the uterine cavity; *b*, lower or cervical portion. It is thus seen that the myoma occupying the posterior wall projected into the uterine cavity and put the mucosa on tension. The myomatous nodule is approximately circular and in many places yields the usual myomatous striation. At *c* is an area of typical hyaline degeneration recognized by its homogeneous appearance. At numerous points indicated by *d* we find sharply outlined granular or spongy areas which are at once recognized as sarcomatous. At *e* along the outer margin of the myoma are areas of sarcoma and the tissue between *f* and *f'* is partly myoma, partly sarcoma; *g* is an area of calcification.

Histologic Examination.—The areas indicating hyaline degeneration are entirely devoid of nuclei. Here the tissue has undergone the usual complete hyaline transformation. Many sections have been taken from the areas suggesting sarcoma. In the majority of these, most of the elements have undergone complete coagulation necrosis. Here and there, however, in the vicinity of the blood vessels, are a good many small round cells. In some of the sections, in which there is incomplete hyaline degeneration, we have a good many muscle fibers still preserved, and there are quantities of mast cells. The nuclei of the muscle fibers show considerable variation in size and in staining properties. One is instantly reminded of a sarcomatous transformation. In the more characteristic sarcomatous areas where the cells are still preserved we see the same histologic changes. The nuclei are four or five times the natural size, are irregular in outline and stain very deeply. In other places we have very large irregular cells with protoplasm which takes the eosin staining deeply, and irregular nuclei situated in the center or at the margin of the cells. Again, some cells contain six or seven nuclei. The picture instantly suggests sarcoma, but it is impossible to tell with certainty whether the growth really started in the muscle fibers or whether it originated from the connective tissue. On the whole, we think that the evidences of muscle origin are the more reliable. In some of the hyaline areas the blood vessels still persist, but the endothelium is present and the cells of the vessel wall are stained deeply and are irregular, suggesting that the connective tissue of the vessel wall is also undergoing a malignant change. The deeply staining cells stand out in sharp contrast to the surrounding areas of hyaline degeneration. Both macroscopically and microscopically areas of calcification are evident. At no point do we find any evidence that the sarcoma extends below the confines of the myoma.

After thinking over this case the surgeon will naturally ask, "Why should we not do a complete hysterectomy in all cases?" The supravaginal operation is the easier one; it leaves a better support to the pelvic floor, there is less danger of tying the ureters, and, as the blood supply of the bladder is little interfered with there is less likelihood of a postoperative cystitis. The advantages of the supravaginal operation appear to more than outweigh the dangers from malignant changes occurring in or associated with myomata. This case, however, clearly indicates that we should carefully examine not only the uterine mucosa for carcinoma, but also the myomata for sarcomatous changes before the cervical stump is closed.

3 West Preston Street.

Treatment.—As a result of German nihilism, many of the leading text-books of the practice of medicine to-day are but little more than text-books on pathology. In looking through one of the latest and most popular works I was not so much surprised to read pages on diagnosis, etiology, pathology, and then to find the treatment disposed of in a short sentence.—Clark, in *Chicago Medical Recorder*.

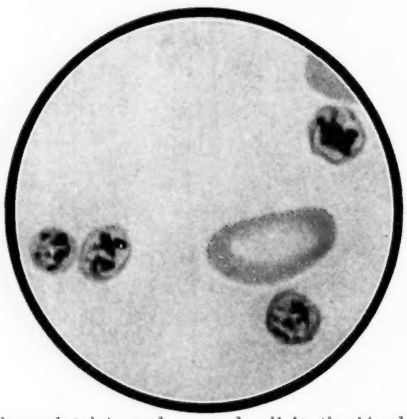

Fig. 1.—Four platelets and one red cell in the blood of a case of secondary anemia. Magnified 2,000 diameters.

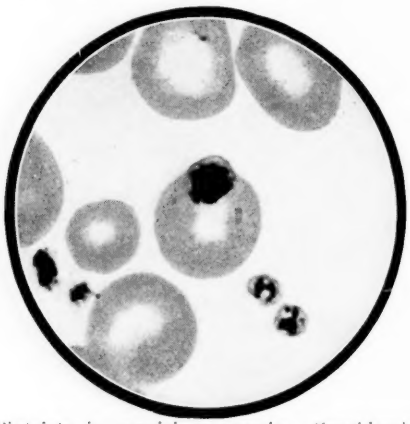

Fig. 2.—Platelets in pernicious anemia. Considerable variation in size. One overlaps a corpuscle. (x 2,000.)

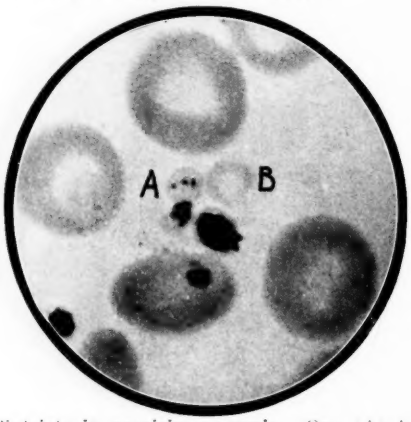

Fig. 3.—Platelets in pernicious anemia. One (A) has a projection suggesting a pseudopod. Another has an intensely stained central portion (nucleus?). A third is superimposed on a red cell. B represents a red cell, microcyte. (x 2,000.)

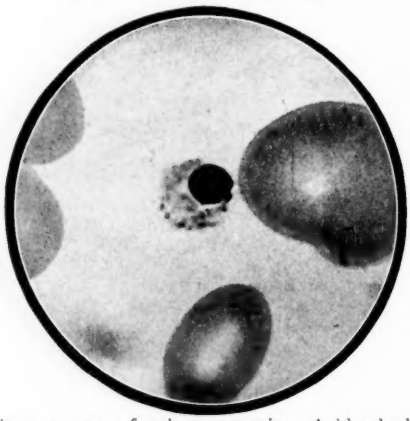

Fig. 4.—From a case of splenic anemia. A blood plate containing a deeply stained chromatin body of large size (nucleus ?) and many smaller bodies similarly stained. Under the microscope a granular structure was apparent in the deeply stained (nuclear ?) body.

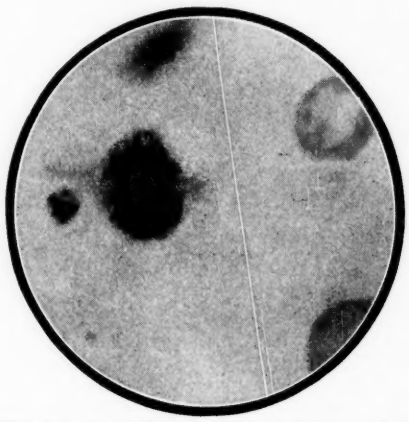

Fig. 5.—Platelet containing 2 distinct masses of chromatin on different levels (case of secondary anemia). Magnification 2,000 (or 2,500 ?).

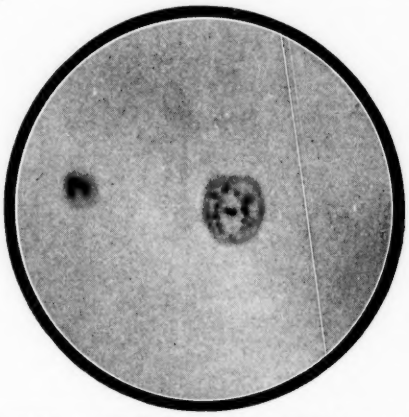

Fig. 6.—Platelet (secondary anemia) containing a "ring body."

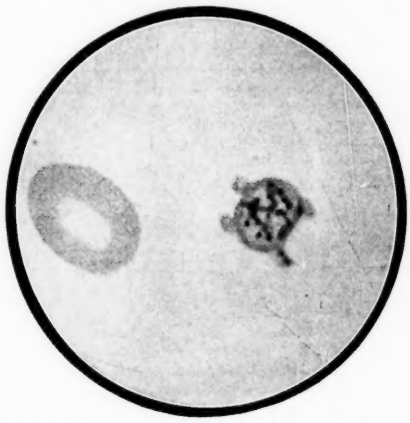

Fig. 7.—Platelet showing "buds" and chromatin granules arranged in rings (case of secondary anemia). (x 2000.)

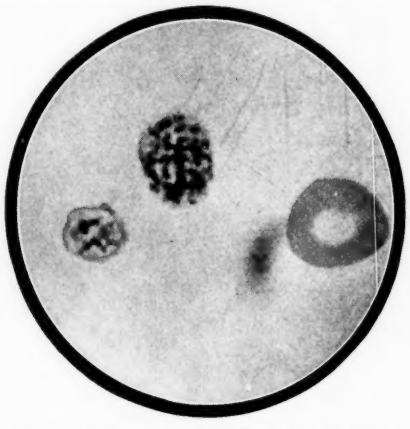

Fig. 8.—Two platelets, one nearly as large as a red cell and showing chromatin granules scattered over the whole surface. In the photograph this cell resembles a stippled erythrocyte, but in the original there is no such resemblance.

NOTE ON THE MORPHOLOGY OF BLOOD PLATES.

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BOSTON.

Blood plates are usually described as from one to three microns in diameter. The accompanying photographs* demonstrate that they are often much larger than this, with a good deal that suggests cell-structure. The blood in which the platelets here reproduced were found was from three cases, one of pernicious anemia, one of splenic anemia and one of severe secondary anemia. Using a modification of Wright's method of staining I have obtained similar plates in cases of malaria, myelogenous leukemia and in normal blood. With this stain the definite, usually rounded outline of the periphery is distinctly shown. In most of the figures hitherto published the edges of the plates are jagged and irregular.

Why are these plates so much larger than those usually described and pictured? Their size is probably due in part to squashing, as there are more large ones near the thin edge of the blood-smear where the leucocytes are also larger. But I believe that another reason is that with ordinary technic only the central deep-stained portion (Fig. 1) is visible at all. The periphery remains unstained and so invisible except when the platelet lies on a red cell. Then the periphery (with ordinary "Romanowsky" stain) usually appears colorless against the pink or yellow of the red cell (Fig. 2 shows a plate lying partly on a red cell with this periphery stained). I believe that with a suitable staining method plates similar to those here figured can be found in all or nearly all blood, normal and pathologic. I am now trying to work out such a staining method.

All of these specimens have been studied by Dr. Richard C. Cabot, who authorizes me to say that he entertains no doubt that the figures here shown are genuine blood-plates.

I am very much indebted to Dr. Cabot for assistance and encouragement given me by him in studying the blood-plates above described.

THE EARLY DIAGNOSIS AND RADICAL CURE OF CARCINOMA OF THE PROSTATE.

A STUDY OF FIFTY CASES AND PRESENTATION OF A RADICAL OPERATION.**

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In the October number of the *Johns Hopkins Hospital Bulletin* I described briefly an operation for the radical cure of carcinoma of the prostate based on a study of forty cases.[1] Since then I have had ten additional cases. In the paper referred to I discussed first six cases which were seen early in the disease, in which a diagnosis of benign hypertrophy was incorrectly made and a partial operation therefore performed. (Bottini operation, 4; suprapubic prostatectomy, 1; perineal prostatectomy, 1.) All these patients subsequently returned with unmistakable evidence of cancer, and only one is alive today. A study of the pathology of these cases, along with the symptomatology and clinical findings, showed that all presented certain features which may now be taken as suggestive of cancer. A study of thirty cases without operation and eight autopsies showed that cancer of the prostate may begin as a small indurated nodule in one or both lobes of an otherwise benign hypertrophy, that it remains confined for a long time within the stout capsule of the prostate, that its line of invasion is upward along the course of the vasa deferentia and seminal vesicles, and not usually into the bladder around the prostatic orifice, and that the inferior surface of the trigone is usually the first portion of the bladder to become involved.

It thus became evident that if a radical cure was to be attempted the line of excision would have to include the entire prostate, with its capsule and urethra, the adjacent portion of the bladder, particularly of the trigone, the seminal vesicles and the ampullæ of the vasa deferentia.

During the course of a year four cases apparently favorable for such a procedure presented themselves, and the operation above indicated was carried out with little difficulty, slight operative shock and a very satisfactory convalescence in three cases; the histories were reported in detail. During the last six months ten patients with carcinoma of the prostate presented themselves, all beyond operative relief but one, and he would not submit to it. In one case, which seemed fairly favorable, the patient was operated on, but died, and autopsy showed extensive involvement of the pelvic peritoneum. In all of these cases the patients had been treated for a long time by their family physicians, and in several instances by skillful surgeons, and the character of the disease was not recognized. Had it been possible to get these cases earlier I believe the radical operation which I have proposed as a routine procedure for all favorable cases of cancer of the prostate would have resulted in cure.

DIAGNOSIS.

The early diagnosis of cancer of the prostate is not easy. I am free to confess that I have failed in at least six cases, and until confronted by their subsequent development never suspected the malignant nature of the disease. A study of the fifty cases which I have now had has brought out the following facts:

Symptomatology.—Cancer of the prostate may occur at any age after fifty years, 57 per cent. of the patients being between sixty and seventy years of age, the youngest in my series being fifty-three. The first symptoms in most cases were similar to those of benign prostatic hypertrophy, viz., slight difficulty and frequency of urination, but in about 30 per cent. of the cases pain was present—an unusual symptom in cases of prostatic hypertrophy. Hematuria occurred only four times as an early symptom, and in only about 20 per cent. of the cases was it subsequently present, in only a few cases as a prominent symptom; and these cases showed cystoscopically considerable intravesical tumor outgrowth, generally of a villous type. In a few instances the prostatic trouble ran a long course, having been present twenty years in one instance, but in these cases the disease probably became malignant many years after its onset. As a rule there has been a more rapid increase in the severity of obstructive symptoms than in benign cases, leading to an early large residual urine. In some cases, however, there has been little residuum and the bladder has been contracted.

Pain has been a prominent symptom, often entirely

* Photographs by Louis S. Brown of the Massachusetts General Hospital.

** Read before the Southern Surgical and Gynecological Association, Louisville, Ky., Dec. 14, 1905.

1. To appear in full in the Johns Hopkins Hospital Reports, a volume entitled "Studies in Urinary Surgery."

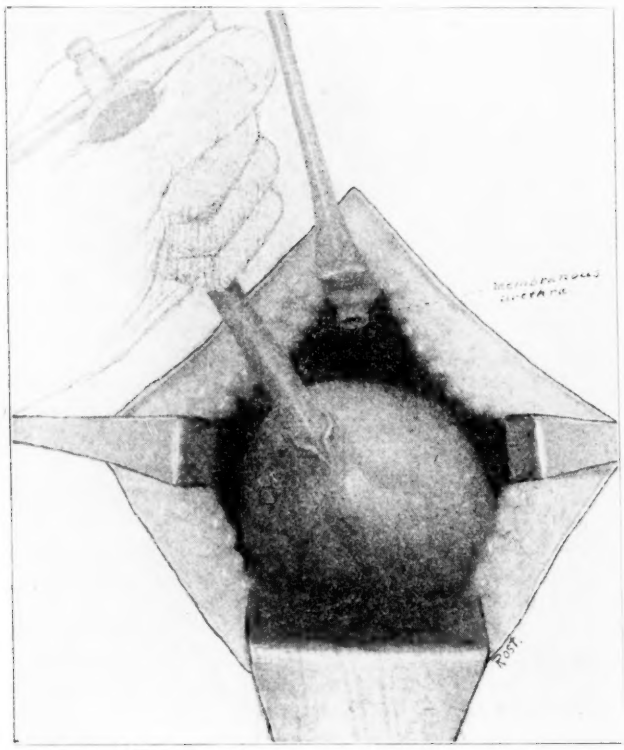

Fig. 1.—Membranous urethra and pubo-prostatic ligaments divided; prostate freed from surrounding adhesions.

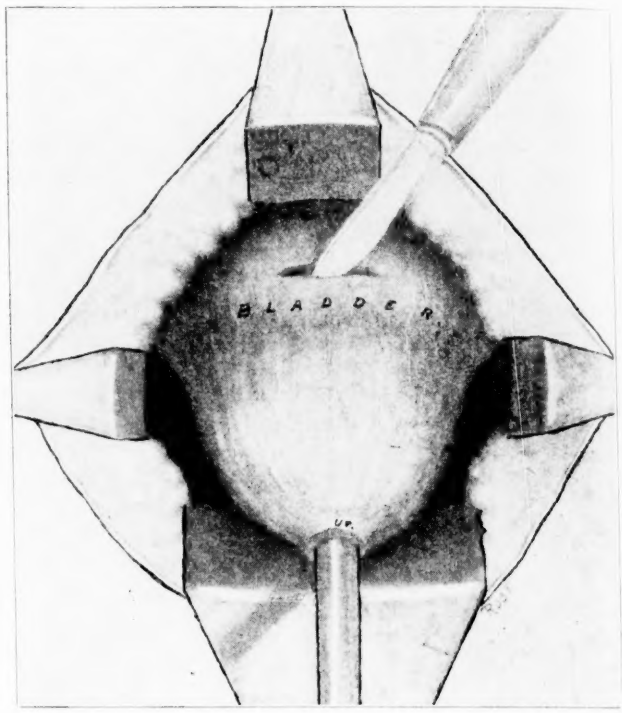

Fig. 3.—Prostate drawn downward exposing anterior surface of the bladder which is incised by scalpel.

out of proportion to the extent of the disease and the obstruction present. It generally appeared as a dull pain in the suprabubic region, which became worse as the bladder became full. During urination in about 25 per cent. of the cases there was pain in the urethra, often referred to the end of the penis, but sometimes limited to the deep urethra or perineum. Pain in the rectum has been present in only 10 per cent. of the cases, and seems to have no relationship to the extent of the involvement in the pelvis, being noticeably absent in a number of cases of extensive prostato-pelvic carcinosis. The same may be said for pain in the lower extremities, hips, thighs, buttocks and along the sciatic nerves; it has been present in cases of slight degree and absent in others of considerable involvement. When present, however, pain in the rectum and lower extremities is a very suspicious symptom and should strongly suggest malignancy. Loss of weight has been a prominent symptom.

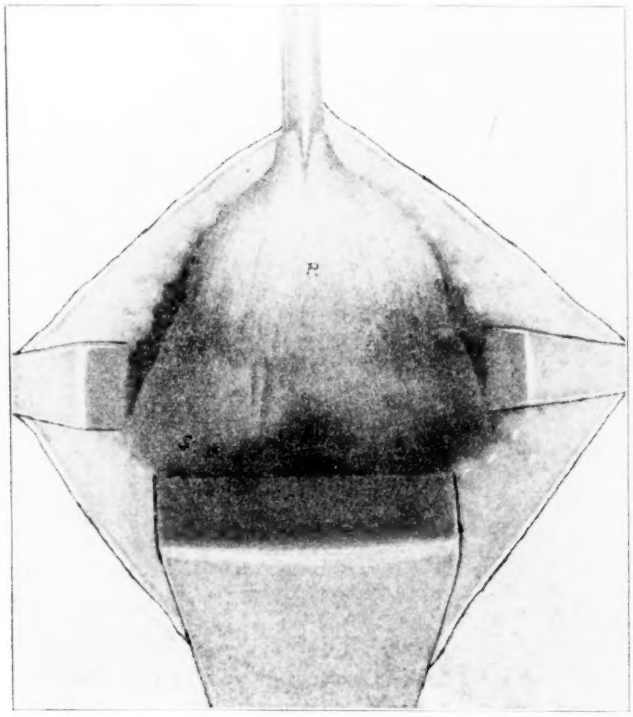

Fig. 2.—Freeing the posterior surface of seminal vesicles. Prostate drawn well out of wound.

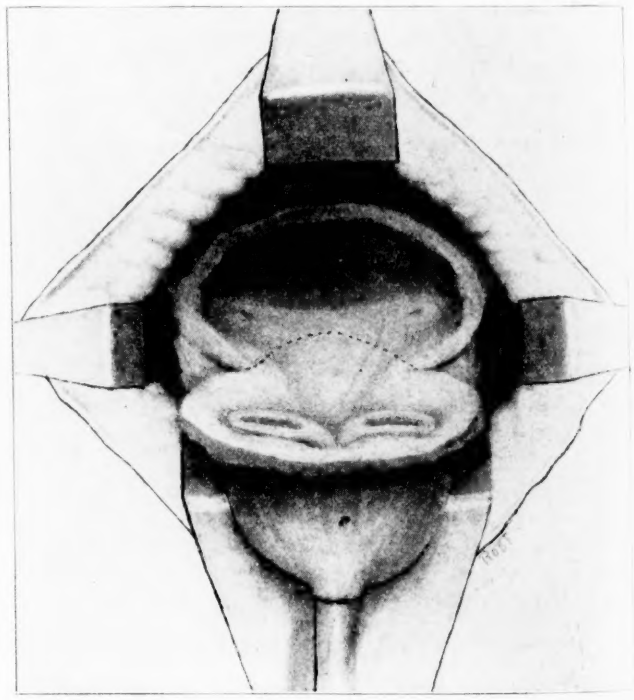

Fig. 4.—Excision of vesical cuff carried as far as trigone. Dotted line shows site of division through trigone.

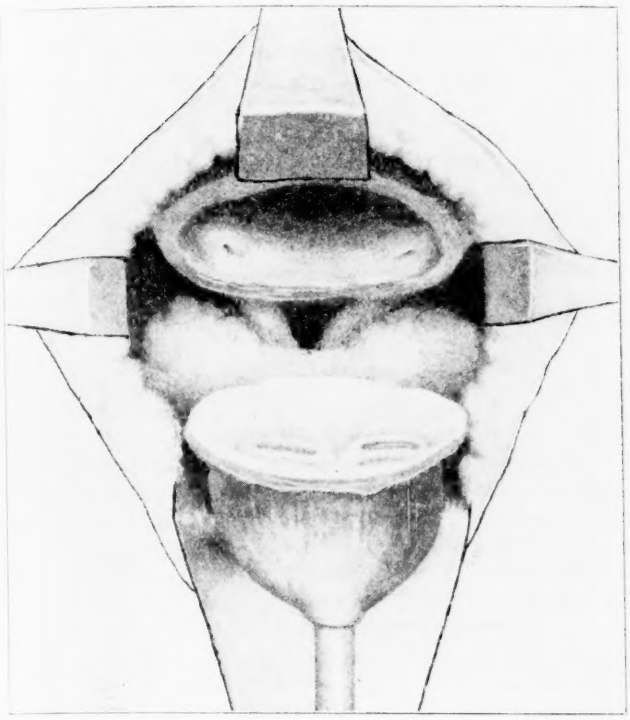

Fig. 5.—Trigone divided. Seminal vesicles and vasa deferentia exposed preparatory to division of vasa.

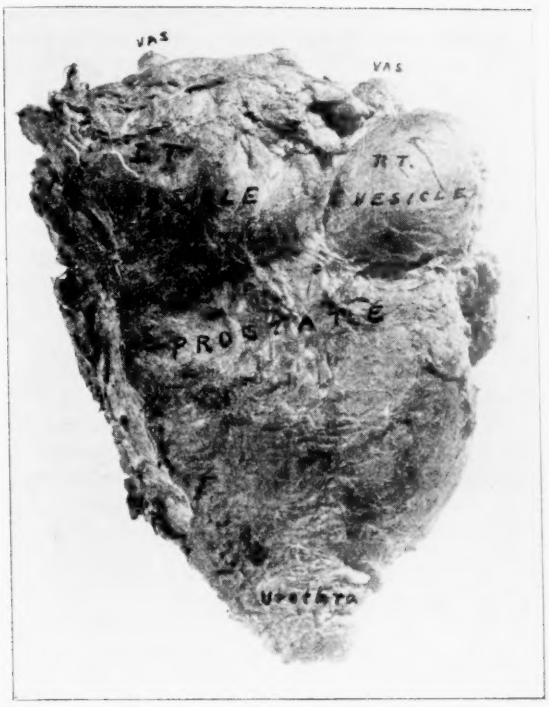

Fig. 7.—Posterior view of specimen in Figure 6.

often occurring early in the disease and being much more pronounced than in cases of simple hypertrophy.

Clinical Findings.—The prostate was considerably enlarged in about 70 per cent. of the cases, but many of these patients were seen late. When the disease is still confined to the limits of the prostate proper this organ has generally been found only moderately enlarged. In such cases portions of the prostate in a few instances have been soft, but marked induration, generally involving almost all of the prostate, has been found in nearly all the cases. The surface of the prostate was smooth in most instances and only rarely rough or nodular until late in the disease.

In one early case there was a small prominent rounded induration at the apex of the prostate involving also the membranous urethra. In later cases the region of the seminal vesicles has shown induration, and often a characteristic hard plateau extending across the intervesicular space from one vesicle to the other and presenting a concave sharply defined upper border to the finger has been present. Study of pathologic specimens has shown this is to be composed of a cancerous invasion of the vasa deferentia and the tissues between them and the trigone. An unusual thickness in the retrourethral portion of the

Fig. 6.—Specimen removed; side view.

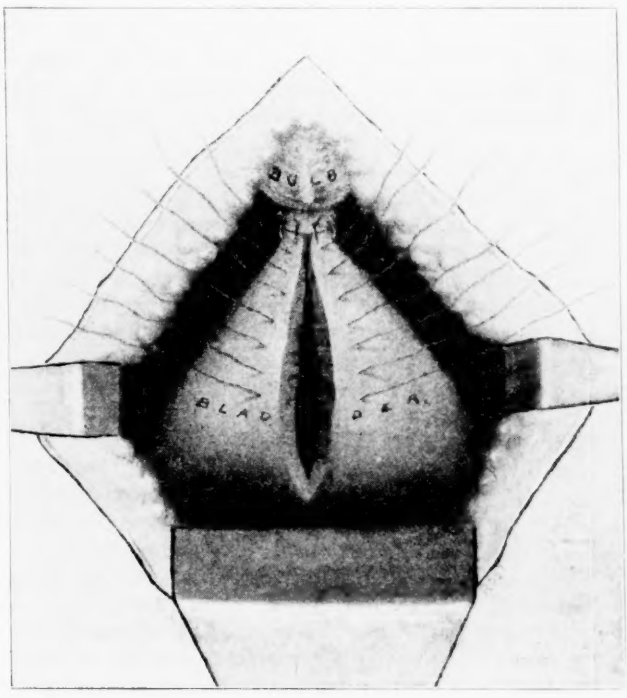

Fig. 8.—The anterior part of the vesical opening has been anastomosed to stump of membranous urethra, remainder being closed by interrupted sutures.

prostate (the posterior commissure), as shown by an instrument in the urethra and a finger in the rectum, was nearly always present. Enlarged pelvic lymphatic glands have been found in only a small number of even the more advanced cases, and as they are occasionally present with ordinary prostatitis their presence or absence is of little diagnostic or prognostic value, unless they are a prominent feature. A remarkable characteristic of cancer of the prostate is that metastases directly to the osseous system occur more often than to the glands.

The cystoscope has been of the greatest assistance in the diagnosis in early cases, as it has shown a distinct and radical difference in the intravesical picture from that seen in cases of benign hypertrophy. In the latter one usually sees two or three rounded intravesical lobes with deep sulci between and a pronounced *bas fond* behind them. In most early cases of carcinoma of the prostate practically no intravesical enlargement could be seen, and the entire absence of deep intervening clefts has been a constant finding in even the great majority of the advanced cases. Except in those rare cases in

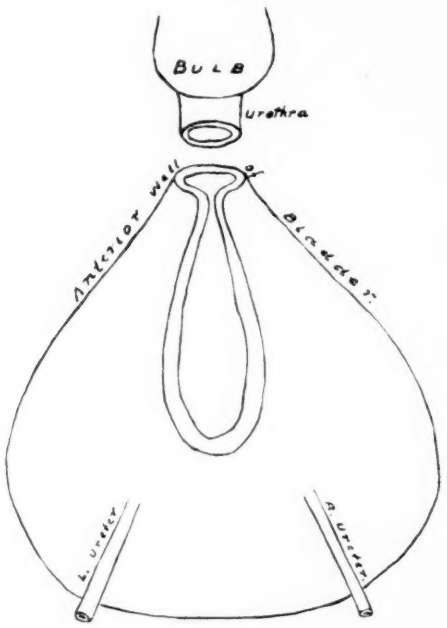

Fig. 9.—Diagram showing plan of vesico-urethral anastomosis.

which intravesical tumors were present, if any intravesical prostatic enlargement were visible it was generally only a slight enlargement of the median portion. A picture of diagnostic importance is an elevation and puckering of the mucous membrane of the anterior portion of the trigone—due, as I have found, to the intervesicular mass of disease involving the trigone and leading to its contracture. Ulceration and intravesical tumor formation has been very rare in this region and then only very late in the disease.

Before withdrawing the cystoscope I have always inserted a finger into the rectum, and the finding in malignant cases has nearly always been entirely different from that in benign cases. There has always been a much greater thickness in the retrourethral portion of the prostate, the median portion being especially thick and the consistence very hard. In later cases, in which the disease has passed above the prostate into the retrotrigonal area, it has been impossible to feel the beak of the instrument in the bladder.

Early diagnosis then may be based on a suggestive history (rapidity of growth and pain), an indurated prostate, a strictured condition of the prostatic urethra near its apex, and the absence of intravesical lobes as shown with the cystoscope. All these conditions are rarely present together, but generally enough are discernible to make the diagnosis clear. An induration of the prostate, coming on without recent prostatitis, without catheterism or an infected bladder, in a man past fifty, with symptoms of urinary obstruction, and particularly with pain, should make the physician suspect cancer at once, and a perineal operation should be undertaken to settle the diagnosis. If residual urine in considerable amount is present without the presence of intravesical lobes, as shown by the cystoscope, the suspicion may be considered strengthened. If one is unable, however, to be certain the prostate can be exposed, as for ordinary prostatectomy, and then by inspection and palpation the diagnosis can be made certain in most cases. In some instances I have been uncertain, and have then made bilateral capsular incisions and excised small portions of the lateral lobes for microscopic study. In two cases it was shown that the irregular induration was due to seed calculi of the prostate gland and in two other cases it was necessary to have frozen sections prepared before I could be certain of the nature of the disease. With a surgical pathologic laboratory adjacent it has been possible to get a nicely stained section for microscopic study in six minutes, and I have considered this worth waiting for in several instances. I have proposed, therefore, to follow the procedures above described in all suspicious cases, and repeat that those cases in which there are areas of stony induration, with pain as a prominent symptom, and little intravesical prostatic enlargement, may be considered very suspicious.

RADICAL OPERATIONS.

As above stated, operations and autopsies have demonstrated that the entire prostate with its capsule and urethra, the seminal vesicles, the ampullæ of the vasa deferentia and the superjacent portion of the vesical trigone, must be excised in one piece if radical cures are to be expected.

A study of the literature of cancer of the prostate shows that this operation has not been done before for the disease. I have excluded the case of Kuster, who removed the entire bladder and transplanted the ureter into the rectum, and the case of Harris, who excised most of the bladder with the prostate (seminal vesicles not mentioned) and transplanted the ureters into the vertex of the bladder. Both of these were suprapubic operations and the patients lived five days and five months respectively. Two cases reported by Demarquay and that of Czerny, in which the anterior wall of the rectum was excised, have also been excluded.

The operation which I have carried out in six cases as a routine procedure for cancer of the prostate is described as follows in the history of one of the cases:

Operation.—An inverted V cutaneous incision was made in the perineum as in the operation employed by me for simple hypertrophy of the prostate, each branch of the incision being about two inches long. By blunt dissection the end of the bulb and central tendon were exposed, and the latter divided, exposing, in turn, the recto-urethralis muscle, the division of which gave free acess to the membranous urethra behind the triangular ligament. Urethrotomy on a grooved staff was followed by introduction of the prostatic tractor, which was opened out after it reached the bladder. While traction was made on this instrument the rectum was carefully separated from the prostatic capsule by blunt dissection until the entire posterior surface of the prostate was brought into view. Up to this point the operator proceeded exactly as in the usual prostatectomy operation. The tissues around the prostate were more hemorrhagic and the wall of the rectum more

closely adherent to the capsule of the prostate than usual. Examination of the prostate showed much greater induration than I have ever encountered in the benign prostate. The rectum and periprostatic tissues were free from invasion, and complete excision was, therefore, decided on and carried out as follows: The handle of the tractor was depressed, thus exposing the membranous urethra anterior to it at a point where it was easily divided transversely with a scalpel, leaving a small stump of the membranous urethra protruding from the surface of the triangular ligament. By further depressing the handle of the tractor the pubo-prostatic ligament was exposed and, being very tautly drawn, was easily divided by scissors, thus completely severing the prostate from all important attachments, except posteriorly (Fig. 1). The lateral attachments, which are slight, were easily separated by the finger. During these manipulations a moderate amount of hemorrhage was encountered (coming from the periprostatic veins, particularly those just behind the triangular ligament in front of the prostate), but it was easily controlled by clamping several bleeding points and applying pressure with gauze by means of an anterior deep retractor (Fig. 3).

The posterior surfaces of the seminal vesicles were then freed by blunt dissection, the now mobile prostate being well out of the wound, as shown in Fig. 2. In this exposure of the posterior surface of the vesicles I was careful not to break through the fascia of Denonvilliers which covers not only the posterior surface of the prostate, but also that of the seminal vesicles, and forms, I believe, an important barrier to the backward growth of the disease. The next step was to expose the anterior surface of the bladder, which was easily done by depressing the tractor and making strong traction. By this procedure the bladder was drawn down close to the skin wound that it was easily incised at a point in the middle line about 1 cm. behind the prostatovesical juncture (Fig. 3).

By means of scissors the division was continued on each side until the trigone was exposed (Fig. 4). After swabbing away the blood and urine, the ureters were easily found and the line of incision carried across the trigone with a scalpel so as to pass about 1 cm. in front of the ureteral orifices. While still making traction on the prostate, the base of the bladder was pushed upward with the handle of the scalpel, thus exposing the anterior surface of the seminal vesicles and the adjacent vasa deferentia (Fig. 5), all of which were carefully freed by blunt dissection with the finger as high up as possible, so as to remove with the vesicles much circumjacent fat and areolar tissues on account of the lymphatics which they contained. The vasa deferentia, after being drawn well down, were picked up on a small blunt hook and divided with scissors as high up as possible, care being taken to see that the ureters were not in danger. After division of the vasa, the seminal vesicles were found to come down more readily, the deep adhesions were finally divided, and the mass shown in Figs. 6 and 7 was removed. As seen here in the side view, a portion of the membranous urethra, the entire prostate with its capsule intact, the seminal vesicles, 4 cm. of the vasa deferentia, and a cuff of the bladder 1 cm. wide along the anterior and lateral surfaces and 2 cm. wide in the region of the trigone has been removed in one piece.

There now remained a large defect to repair. The vesical opening was about 8 cm. in diameter and had sunk far back in the depths. The stump of the membranous urethra had been obliterated by the compression of the anterior retractor so that it was necessary to insert a soft rubber catheter through the urethra from the meatus to discover it. The anterior wall of the vesical opening was then caught with forceps, and I was surprised to find how easily it could be drawn down to the membranous urethra, where an anastomosis was readily made, as shown in Figs. 8 and 9. The first suture was placed by inserting the needle into the triangular ligament above the urethra and bringing it out through the anterior wall of the membranous urethra, then through the anterior wall of the bladder in the median line from within out, care being taken to include only the submucosa and muscle. When this suture was tied, the median line of the anterior wall of the bladder was drawn to meet the median line of the roof of the remaining membranous urethra; the knot was outside, and the thread was left long.

Lateral sutures similarly placed (including the periurethral muscular structures below) and two posterior sutures completed the anastomosis of the membranous urethra with a small ring into which the anterior portion of the margin of the vesical wound had been fashioned by the tying of the sutures, as shown in Figs. 8 and 9. The remainder of the vesical wound now presented a longitudinal opening which was easily closed by sutures (Fig. 8), thus completely closing the defect and replacing the prostatic urethra with a funnel-shaped process made by the bladder wall. The sutures used were silk, one end of each being left long and brought out of the wound so that they could be extracted later (since then I have found alternate sutures of catgut and silkworm gut, also left long, the best). After light gauze packing had been placed in various portions of the wound, the levator ani muscles were drawn together with catgut (two sutures) in front of the rectum and the skin wound closed on each side with interrupted catgut sutures, leaving only a small portion open at the angle in front for exit of the gauze drainage. The rubber catheter (which was of considerable service in making the anastomosis of the urethra and bladder) was fastened in place by adhesive plaster around the penis, and the patient was returned to the ward. During the operation he received 1,000 c.c. salt solution infusion beneath the breast, and his condition throughout was good, the pulse varying from 62 to 92 and being 80 at the end of the operation, which required two hours.

Examination of Tumor.—A study of the specimen removed showed adenocarcinoma involving the entire prostate, the region between the seminal vesicles and the inferior surface of the excised trigone and the vasa deferentia. The capsule of the prostate and the bladder at the upper limit of the excision were free.

Convalescence.—The patient made a good recovery. The perineal wound healed tight; there was no difficulty in urination; he was able to hold urine for three or four hours at night; there was incontinence during the day.

REMARKS ON OPERATION.

As remarked above, this radical operation has been performed on six patients with one operative death. The autopsy in this case showed extensive intraperitoneal metastases and explained the cause of death. Two patients have died since the operation, one a year later from an operation for vesical calculi. Autopsy showed a small carcinamatous mass about the size of a pea adjacent to the left vas deferens. This was the only cancerous tissue found; no metastatic glands or osseous metastases were made out. The recurrence had been predicted in this case after a study of the operative specimen which showed carcinoma near the upper end of the left seminal vesicle.

The other patient died of nephritis two months after the operation. Autopsy showed that the cancer had been thoroughly extirpated, a careful search failing to reveal any malignant disease, regionary or metastatic. Numerous sections were made of the pelvic tissues. It therefore seemed evident that had the man lived he would have remained cured of the cancer.

Three patients are living and well—one ten months, one eight months and one one month after the operation. One patient has control over his urine and can hold it several hours; one has incontinence in the day, but perfect control at night; the third is still in the hospital. All have been completely relieved of the severe pain from which they suffered before operation. None of my cases were particularly early ones. With an early diagnosis and operation the operative mortality should be nil, as only the patient with extensive (unrecognized) peritoneal metastases showed any shock.

CONCLUSION.

Cancer of the prostate is quite a common disease, about one case in seven of prostatic enlargements in men

past fifty being cancerous. It is characterized by induration—often of stony hardness, and pain is frequently present. The early diagnosis may be made when there is marked induration, and the absence of the usual intravesically projecting lobes, as shown by the cystoscope; (the prostatic orifice often appears normal). The disease is often of slow growth and remains for a long time confined within the limits of the firm prostatic capsule. The operation carried out by me in six cases is necessary if a cure is to be expected; it is not difficult of performance, and furnishes remarkably satisfactory functional results. With early diagnosis the mortality should be nil and the percentage of cures large. The general practitioner should suspect every indurated enlarged prostate and the patient should be urged to submit to a perineal operation, when, if the disease is proved to be malignant, the radical operation can be done.

THE TREATMENT OF ANEURISM BY DIRECT, GRADUAL ARTERIAL CLOSURE.

REPORT ON THE APPLICATION OF THE METHOD TO A CASE OF ANEURISM OF THE ABDOMINAL AORTA.*

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RATIONALE OF TREATMENT.

The main basis for the suggestion of gradual arterial closure as a probable means of relief for certain cases of aneurism lies in three facts observed in human pathology and surgical experience:

1. Gradual closure of a large blood vessel as from the pressure of a growing tumor, so far as such pressure is concerned, is not associated with depression of vital functions nor with nutritional or other disturbances within the area of its distribution. The anastomotic current is so gradually and perfectly established that the entire absence of symptoms due to circulatory disturbances may fail even to suggest the occlusion of a large blood vessel.

2. In the larger proportion of those exceptional cases of aneurism in which a spontaneous cure occurs this results from the deposition of the laminated coagulum or so-called active clot, on the walls of the sac, and is caused by the slowing and not the complete stoppage of the blood current in the vessel (Ashurst). It may result from any accidental cause, such as the pressure of an enlarging tumor on the artery on the proximal side of the seat of disease.

3. Aside from the radical surgical procedures which undertake, where indicated, the complete exclusion of excision of the sac or its obliteration by arteriorzhaphy, the best results in the surgical treatment of this disease, have come from methods which aim at the slowing of the blood stream through the sac, and the production of an active clot—as, for instance, in the Hunterian ligation—rather than the sudden and complete cessation of the blood flow and the production of coagulation *en masse*. Methods which cause the formation of the passive clot at best are only followed because anatomic and other local conditions prevent the adoption of procedures designed to secure the deposition of the stratified coagulum.

These three basal propositions and the principles underlying them have long been recognized. While brilliant results in many cases of aneurism, especially those involving the arteries of the extremities, have followed the radical procedures referred to and which are not based on these principles, yet unfortunately, the proportion of those not amenable to this form of surgical treatment is large. The usual age of patients afflicted with the disease, their depressed local and general vitality, associated organic disease, the anatomic site of the aneurism, are factors which all too frequently demand the adoption of some less radical, even if less hopeful, method.

It is not to be contended that the very gradual arterial closure induced by certain pathologic processes can be reproduced by surgical means, but it is evident that the more closely these can be approximated, within reasonable limits, by the surgeon, the better will be his results both in the avoidance of risks of sudden closure and the certainty of cure by the formation of an active coagulum.

In this connection it will be of interest to refer again to cases of spontaneous cure by accidental slowing of the blood stream. Recoveries from this cause may result in the entire obliteration of the sac, the circulation being carried on by means of collateral vessels, or

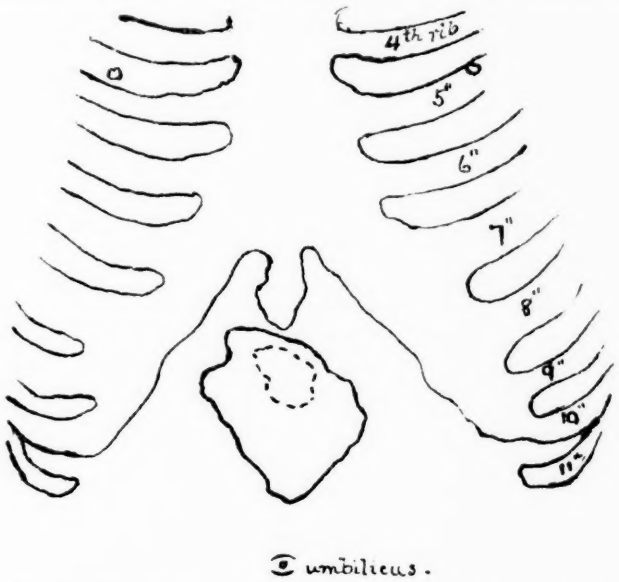

Fig. 1.—Reproduction from a tracing of outlines marked on the patient's thorax and abdomen. Dotted line indicates area of aneurismal pulsation detected by light palpation; solid line, limits of aneurismal pulsation outlined by moderately deep palpation.

a narrow channel may be left running through the tumor through which the circulation may be maintained. The recognition of the possibility of cure by the latter means is of great importance in relation to the successful treatment of aneurisms from the sac of which, or from their immediate neighborhood, arteries originate supplying vital organs and which have only very meager collateral circulatory channels. Thus, in an aneurism of the abdominal aorta from which arises the celiac axis, it is manifestly impossible to adopt any radical method of cure, and what degree of relief is ever obtained must be secured, it would seem, without the sacrifice of the lumen of this branch, for the reason that its subdivisions supply the stomach, spleen and liver and have only the slightest and most indirect collateral circulatory channels. It is thus evident that in such a case the method of cure must aim at the avoidance of the complete obliteration of the sac and the process of clot formation must be carried, if possible, only so far as to stop expansile pulsation, and to leave permanent channels through the sac, maintaining the patency of the larger arterial branches arising from the wall of the

* Read before the Alameda County (Cal.) Med. Assoc.

aneurism. In the nature of things, in these cases, the best that can be attempted is the obliteration of only such portions of the sacculation as lie without the line of the main channel and of the blood currents to these branches; in some parts of the sac the process

Fig. 2. — Constrictor, actual size. All parts are made of silver except the extremity placed in contact with the artery, which is made of hard rubber. Its free borders are rounded so as to reduce traumatism to a minimum. The transverse bars near this end are made as rollers to facilitate movements of the tape. The windlass permits the regulation of the degree of pressure on the artery and the barlock fixes the windlass at any desired point.

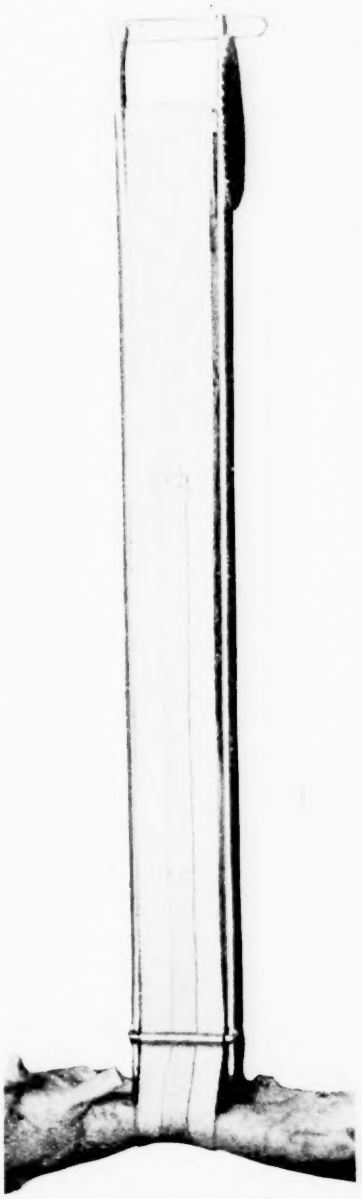

Fig. 3.—Constrictor with tape applied to section of human abdominal aorta, actual size. The lumen of the vessel is nearly closed. Note rolling out of margin of tape. The tape is removed by cutting one side as deeply as possible in the wound with angular scissors, then turning the wheel, at the same time fixing the instrument.

may only result in the strengthening of its walls. It may seem fanciful to think this a possibility or to ascribe to any artificial method such selective properties as the accomplishment of this demands. A short review of the process of the formation and deposition of the active coagulum, however, will tend strongly, I believe, to remove this from the sphere of the imagination, and to show that in gradual and incomplete arterial closure lies the probable means of its attainment. To this, pathology and surgical experience lend strong reinforcement.

THE SLOWED BLOOD CURRENT.

Passing by the chemical and histologic truths concerned in the process of thrombosis as well as the several etiologic agencies not directly related to the production of the form of coagulum on which our present interest centers, I will consider chiefly the one factor most directly related to the formation of the stratified or mixed clot, viz., the slowed blood current. Although personal conjecture is associated with the statement of well-observed conditions, we shall later have an opportunity of seeing how far it is supported by recognized pathologic truths.

In the absence of other determining conditions, the formation of this coagulum begins first where the force of the blood stream is most reduced, at the margins of the eddies and pools in those portions of the sacculation least directly in the line of the main blood current. Here the blood platelets, the leucocytes, the fibrin and perhaps, the aggregation of a few red corpuscles produce a white thrombus. For reasons which do not plainly appear, but most likely lie in various temporary conditions affecting the force and direction of the blood stream in the sac, this clot does not at once assume the form of a considerable mass, but is deposited layer on layer, more or less irregular in size and form and thickness. Blood oozing in between these layers stagnates locally and coagulates *en masse*, producing together with the layers of white thrombus the stratified, or mixed, clot.

The nature of this form of coagulum, as well as its method of production, is quite well understood, but the extent to which its formation may be carried and the conditions influencing its form and size are not so easily discovered. Obviously, however, it would seem that the extent to which this process goes on is governed by the degree to which the blood stream is slowed. Thus, if the current is gradually and continuously reduced, the clot formation will advance with the slowing stream, gradually extending from the periphery into the central portion of the sac until, if the current is all but stopped, the entire sac is filled in this stratified way. If, however, the force of the stream is not so much slowed, the clot formation will advance only so far into the more actively moving portions of the current as the force of the stream will permit the deposition of the histologic elements and the carrying on of the chemical processes incident to clot production. In other words, when the advancing clot meets a too forcible blood current the process is stayed. If the current be still further reduced, the process will advance.

If this correctly represents the relation of the extent and form of active clot formation to the main current through the aneurism, it would seem that it explains as well its relation to secondary currents to the larger arterial branches arising from the sac. The law of hydrostatics, that pressure on a confined fluid mass is equally distributed in all directions, would be an important factor in maintaining their patency, tending as it would to make the force of the flow equal toward the lesser and greater channels, and thereby exerting the same repressive influence on clot production threatening to encroach on them. The subsequent usual contraction of the clot would tend to maintain still further their

lumen. Thus it would seem, *a priori*, that it is possible to carry on clot formation through control of the current to the extent of completely obliterating the sac or filling a large portion of it and leaving sufficient channels to maintain the circulation not only through the principal vessel, but through its larger branches as well.

Let us see if we can secure any support to this position from pathologic observation. The so-called antemortem heart clot resulting, when for any reason the heart's action is considerably retarded, does not ordinarily form in such parts of the organ as are most directly exposed to the main blood current—the center of the cavities or the valvular openings—but, if in the auricles, they form usually in the auricular appendices; if in the ventricles, in the intertrabicular spaces where the current is least forcible. If thrombosis occurs in a vein it usually begins first in the pockets of the valves where the current is slowest. So much for the general location for the beginning of clot formation.

Can the further study of this condition throw any light on the influences governing the extent to which it may be carried? The presence of the large so-called postmortem heart clot partly decolorized, partly red, occupying the heart cavities, perhaps extending through the auriculo-ventricular openings into the vessels, has been observed by each one of us. No one doubts that its presence in those localities, ordinarily the site of a fast-moving stream, is due to the very feebly flowing blood current incident to death or the complete stagnation immediately following. Why, then, in cases of pronounced antemortem white thrombus, formed while there is still considerable force to the blood stream, is it not found in those localities and why its periphery ordinarily limited to a point not far beyond the line of the most direct and forcible blood flow? Is it not due to the repressive influence of the more actively moving current beyond the limits of which it can not advance? Will not the same thing explain the fact that after ligation of an artery the coagulum extends to the first collateral branch, while in a vein with its lower blood pressure a clot once beginning to form may extend indefinitely, even to the heart?

Does not the occasional cure of an aneurism by accidental events wherein is found a channel, perhaps only a narrow one, running through the aneurismal mass and through which the circulation is continued, tend strongly to prove the same thing? To be sure, clot formation in the sac may partially break down after its complete filling, and tunneling may result with its permanent channel formation; but, on the other hand, it does not seem to be forcing matters to regard the channel as frequently the result of the continuance of a force to the blood stream of sufficient degree to prohibit the advance of the clot to the extent of entirely obliterating the cavity of the sac. Finally, my personal experience with the case of aneurism presently to be described, wherein the function of organs whose blood supply came through arterial branches having their origin in the sac was not apparently interfered with, although clot formation had advanced so far that appreciable expansile pulsation and thrill had ceased, tends strongly to confirm the position taken that the process of coagulation can be thus controlled.

THE TREATMENT DEMONSTRATED.

If the principles on which rest the suggestion of the cure in certain cases of this disease by gradual closure of the artery are sound, it only remains to demonstrate a practical method. Two questions, especially, in this relation demand an answer:

1. Can such a procedure be followed and infection avoided?

2. Can the prolonged direct pressure necessary to induce gradual closure be made on the arterial wall without serious damage to its tunics or to adjacent structures?

In reply to the first question it may be stated that the open wound maintained patent for a number of days, perhaps involving the peritoneal cavity and requiring occasional exposure, is a matter to be seriously considered. Yet I believe that no one to-day will affirm that in a patient capable of co-operating with the surgeon, modern aseptic and antiseptic technic scrupulously followed, not only at the original operation, but throughout each subsequent treatment, is unable sufficiently to guarantee a reasonable degree of safety concerning the avoidance of infection.

As to the second question, the experience of Crile in temporary direct closure of the carotid arteries in operations on the head and neck, the experiments of Keen in temporary complete closure of the abdominal aorta in dogs, and my own series of experiments on dogs to ascertain the feasibility of gradual closure of the abdominal aorta and the effects of prolonged moderate pressure on it [1] go a long way toward proving that at least in healthy arteries, it is possible to maintain a reasonable degree of direct pressure for a considerable period of time without seriously endangering their integrity. As a further proof I desire to present the following case wherein direct pressure was applied continuously to the upper portion of the human abdominal aorta for fifty-one hours without apparent damage to the vessel. The case is unique in that it is probably the first instance wherein any such procedure has been attempted; and probably also in this case direct surgical attack was made on the abdominal aorta at a higher point in its course than has heretofore been made. That the artery was atheromatous is an additional point of interest, as my previous similar operations had been practiced on dogs with presumably healthy vessels.

I would much prefer to postpone this report until a more extensive personal experience had accrued, and my reason for not doing so at this time is that further opportunity for investigation along this particular line, as will be readily understood from the knowledge of the comparative infrequency of aneurismal disease in this locality, may be long deferred, and it seems to me that the results already attained and the lessons thus far taught are of sufficient importance to warrant their announcement.

My attention was first called to this question of gradual occlusion in 1898, in connection with the difficulties attending the necessity of formally resecting, in what seems to have been the first recorded instance, the superior longitudinal sinus. In a paper [2] containing a report of the above case I referred to the desirability, under certain conditions, of closing the sinus by a gradual method in order to insure the establishment of the collateral circulation, and suggested the use of specially constructed clamps. In a subsequent communication [3] I stated that the "method of gradual occlusion of a sinus suggested in the original paper, with a modified technic

1. "The Gradual Surgical Occlusion of Large Arteries: Its Relative Advantages, Together with an Experimental Inquiry as to Its Feasibility." Annals of Surgery, August, 1903.

2. "The Surgical Occlusion of the Cerebral Sinuses." Annals of Surgery, August, 1898.

3. Id. January, 1899.

has a probably wider range of application to the surgery of the blood vessels than was then intimated. * * * The importance of this in the surgical treatment of aneurisms of the large arteries, as well as in other conditions will be readily appreciated." In the fall of 1898 I had undertaken to test the practicability of gradual occlusion by the application of a clamp to the abdominal aorta of a dog, and in a paper[1] I described further experiments on dogs tending to strongly prove its feasibility.

That I am able at this time to present additional proof is due to the courtesy and professional enthusiasm of Dr. T. A. Williams, who requested me to see the patient in this case and to follow my own judgment as to operative procedure. To him also I am indebted for the privilege of making the clinical report.

History.—Male, aged 53, Greek, vegetable dealer. There is no history of syphilis nor of the excessive use of alcohol. He had scars resulting from glandular suppuration in both inguinal regions. Four years previously he had complained of distress in the epigastrium which developed gradually. In August, 1903, he underwent a laparotomy for abdominal aneurism at the French Hospital, San Francisco. What attempt at relief was made was not known to the patient. His greatest complaint later was of pain in the lower dorsal region and in the epigastrium. Four months before my visit he had become addicted to the use of opium, but subsequently was cured of this by Dr. Williams. The pain so increased, however, that the use of morphin was resumed and one grain a day had been administered hypodermically and gave considerable relief. His weight had decreased from 190 pounds, when his trouble began, to 147.

Physical Examination.—I first saw the patient in March, 1905. His general condition was fairly good. Physical examination showed unmistakable evidence of the existence of an aneurism of the abdominal aorta of large size. The peripheral arteries were not appreciably atheromatous. The usual signs of expansile pulsation and bruit were present, and even the epigastrium was seen to pulsate forcibly. A consideration of the chart (Fig. 1), reproduced from a tracing of outlines marked on the patient's thorax and abdomen, will reveal the position and relations of the aneurism and will explain some of the difficulties of the operation described. The dotted line shows the area of the epigastrium within which most superficial palpation detected the aneurismal pulsation, while the solid line represents the limits of aneurismal pulsation outlined by moderately deep palpation. It will thus be seen how close the aneurism approached to the ensiform cartilage. As nearly as could be estimated the distance was only 5 mm. The ensiform cartilage was 4 cm. wide at its base and 4.5 cm. long. The distance between the margins of the costal arch at the level of the tip of the ensiform cartilage was 10 cm.; between the tips of the eleventh ribs it was 22 cm. The size of the aneurism, as estimated by deep palpation, was 9 cm. in both vertical and transverse diameters. The lower border was 3 cm. above the umbilicus. A cicatrix resulting from the former operation was noticeable, and its character indicated healing, accompanied by suppuration.

Operation.—Operation was performed April 5, 1905, with the assistance of Drs. T. A. Williams, A. S. Kelly and J. M. Shannon. A median abdominal incision was made extending from the base of the ensiform cartilage well down over the aneurism. It was soon evident that conditions resulting from the first operation would complicate matters and make operation much more difficult than otherwise. The parietal peritoneum, liver, stomach and omentum were everywhere adherent to each other where normally in contact. The liver, where visible in the wound, was scarcely recognizable, being of a peculiar yellowish-brown hue. It was separated from the abdominal wall, partly by tearing away its capsule and leaving it adherent to the peritoneum and partly by incising adhesions and peritoneum. The entire ensiform cartilage was removed to gain space for necessary manipulations above the aneurism. In doing so the xiphoid artery was incised and ligated. The lower border of the left lobe of the liver was incised longitudinally for about 3 cm. between catgut sutures to gain space for the hand and instruments. After separating the lesser curvature of the stomach from the liver, to which it was closely attached, the lesser omentum was perforated with the index finger and the aorta sought beneath the posterior parietal peritoneum above the aneurism. The latter was pulsating forcibly from beneath the stomach and pancreas against the hand, against which it was firmly pressed because of the limited space between the aneurism and the liver and diaphragm. This constant impact made detection of the aorta extremely difficult. Pulsation in what seemed to be the abdominal aorta from its location could not be positively determined. What seemed to be the right border of the vessel was most distinctly felt and the peritoneum over it was torn through. This was accomplished with a long-handled scarifier with which I had provided myself to be used in case the peritoneum resisted the finger nail. The index finger was then passed beneath the aorta. The peritoneum along the left margin of the vessel was torn through with the scarifier, and the finger was passed completely beneath the aorta, when it was positively recognized, not by forcible pulsation as I expected to find—in fact, the absence of this was especially noticeable, although its recognition was doubtless prevented by the constant rhythmic impact of the aneurismal sac against the examining finger—but by a peculiar whirring sensation or thrill imparted to the sense of touch by the blood current deflected from its direct course. The absence of pronounced expansile pulsation at the point of constriction is worthy of special notice as having a direct bearing on the question of the feasibility of prolonged instrumental pressure on the artery without damage to the arterial tunics, and no doubt accounts largely for the fact that appreciable injury was not wrought by this procedure. It may be accounted for by the firmness of the adventitia of the aorta.

Complete momentary stoppage of the flow of blood through the aorta caused entire cessation of pulsation in the aneurism. Considerable venous hemorrhage attended the separation of the adherent organs and the dissection of the aorta, and on this account and because of the depth of the vessel and the fact that the possibility of retraction of the superficial structures was very limited because of the rigidity resulting from the preceding inflammatory process, most of the steps of the procedure had to be carried on by the sense of touch alone. The part of the aorta reached by the finger, so far as could be determined, seemed pliable and healthy, although situated close to the aneurism. At this stage, 11:20 a. m., a cotton tape, 12 mm. wide, reinforced longitudinally along its central line by a tape 4 mm. wide and the whole impregnated with paraffin[4] and attached at one end to the arterial constrictor[5] (Figs. 2 and 3) was passed from left to right beneath the aorta on the point of a hook-shaped instrument which was guided by the index finger beneath the vessel. This proved to be the most difficult part of the operation. The free end of the tape was then attached to the constrictor, which was tightened so as to make apparently a very slight impression on the aneurismal throbbing. More was not attempted for the reason that the general condition of the patient at this time was not encouraging, and it was thought best to avoid doing anything that might still further depress him. Gauze packing loosely applied was arranged spirally around the constrictor and extended from the aorta out through the skin opening to prevent contact of the metallic parts of the instrument with the viscera which would have caused local necrosis, to control venous hemorrhage and to cause adhesions to be formed around the constrictor thus to shut off the general peritoneal cavity from the site of operation in case, notwithstanding our efforts at its prevention, sepsis should occur. The constrictor thus ap-

4. This arrangement of the tape was made as tending to cause the borders of the wider tape to flare outward, thus reducing to a minimum the amount of traumatism due to the impact of the pulsating arterial wall against the tape margin. The instrument also was designed to effect the same end. Paraffin was used to prevent adherence of the tape to the vessel. The portion of the tape only which is to lie in contact with the artery—the whole being sterile and dry—should be merely dipped in boiling paraffin and the excess thoroughly removed from the tape.

5. For several valuable suggestions in regard to the constrictor I am indebted to Mr. Ole Olson, surgical instrument manufacturer, of Oakland, Cal.

plied rose and fell with each aortic pulsation. The abdominal incision was closed around the gauze and instrument. The latter was covered with loosely fluffed gauze and cotton and the dressings so arranged that no pressure would fall on the constrictor. The patient stood the operation comparatively well. He was soon conscious after its close. He vomited slightly at this time.

Postoperative History.—April 5, 4:20 p. m.: The patient was in good condition; pulse, 84. There was considerable seepage of blood, and the wound was redressed. The constrictor was tightened until a decided impression was made on the aneurismal pulsation and on the femoral pulse. After this the pulse was 80. The patient was not distressed by this procedure. At 10 p. m. he was in good condition; pulse was 84,

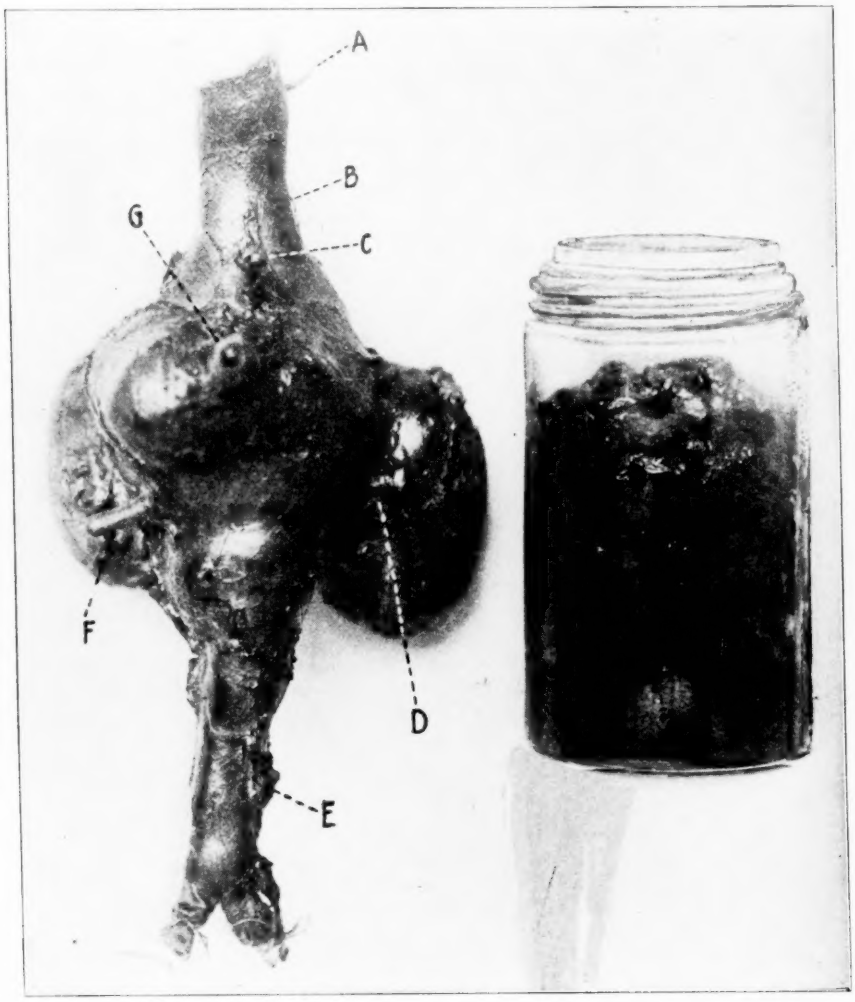

Fig. 4.—Aneurism and coagula removed from sac. One-fourth actual size. A. Phrenic artery. B. Site of application of constrictor. C. Celiac artery. D. Left renal artery. E. Inferior mesenteric artery. F. Right renal artery. G. Superior mesenteric artery.

full. Pulsation in the aneurism was about as forcible as before the afternoon treatment. The windlass was tightened until there was a decided lessening of force of the femoral pulse and pulsations in the aneurism were just appreciable. The constrictor had a strong tendency to bend downward and to twist from left to right.

April 6, 10 p. m.: The patient had a comfortable night, sleeping well. Temperature was normal; pulse, 84. He had no desire for food or drink. There was no paralysis; pulsation in the femoral artery was more pronounced than immediately following last constriction, but not so marked as after the previous treatment. The radial pulse was full. Constriction of the aorta was advanced so as to leave a just perceptible femoral pulse. This caused the aneurismal pulsation apparently to disappear; but it was difficult to determine this absolutely on account of the motion transmitted to the neighboring parts by the constrictor and the aortic pulsation. The patient said that he did not feel different than before this last increase in the degree of constriction. After this the pulse was 84 and the man rested quietly. At 5 p. m. he was in good condition. He vomited twice without much retching. The pulsation in the femoral artery was more pronounced, but still very feeble. Deep palpation over the aneurism revealed a feeble thrill. The tapes were tightened until the thrill disappeared; this very slightly reduced the force of the femoral pulse. The patient did not complain much of pain. There was some slight hiccough. After tightening the tape the pulse remained at 84. The extremities were warm; there was no paralysis of motion or of sensation in the lower limbs.

April 7, 8 a. m. The general condition was excellent; the patient passed a good night. The femoral pulse was larger, and pulsation over the site of the aneurism was noticeable, but a thrill was not discernible. Inasmuch as I was of the opinion that the constrictor was applied below the celiac axis, and being emboldened by Keen's report of a case wherein he applied a ligature to the abdominal aorta, "whether above or below the celiac axis was not qu certain, but it was surely applied above the renal and mesenteric arteries," without prolonged circulatory disturbance, the constrictor was further advanced and the femoral pulse abolished. Pulsation over the site of the aneurism wa less pronounced, but still discernible. It was not expansile, however, nor was a thrill discoverable. After constriction was complete the patient became restless and complained of pain in his back and tingling in his lower extremities. The pulse before final constriction was 76; a few minutes later it was 78.

Unfortunately the patient's condition grew rapidly worse following this treatment, and I was summoned to the hospital at 2:15 p. m., when he was moribund. His pulse was rapid and feeble and just perceptible at the wrist; his countenance was pale anc. respirations shallow. The tape and constrictor were immediately removed, no hemorrhage resulting; the gauze pack was left *in situ*. This, together with active stimulation, failed to give relief, however, and the patient died at 3 p. m., less than an hour later.

Remarks.—Inquiry elicited the fact that, shortly after the closing of the constrictor, the patient became very restless and complained of pain in the lower limbs, and that after only ten minutes had elapsed there was present motor and sensory paralysis in the same parts. The knees, legs and feet became cold, but the thighs retained considerable heat.

After the operation the patient passed urine four times: April 6, 1 a. m., 12 oz.; 2 p. m., 12 oz.; 5:50 p. m., 15 oz.; April 7, 8:50 a. m., 14 oz. A sample of urine, a mixture of the second and fourth urinations, gave the following result on examination: Sp. gr. 1020, strongly acid, no albumin or sugar, heavy sediment of urates, urea, 1.5. Microscopic examination showed urates, no pus, blood or casts. Pain and restlessness were controlled by hypodermics of morphin sulphate, gr. ½, and atropin sulphate, gr. 1/75, to which dose the man was accustomed. One of these hypodermics were given on April 5, three on the sixth and one on the seventh, besides another of ¼ gr. morphin sulphate on the seventh. This quantity of the

6. Am. Jour. Med. Sciences, September, 1900.

anodyne averaged, however, only about what he was receiving prior to the operation. The maximum temperature on April 5 was 99.3 F. (by mouth); on April 6, 100.4; on April 7, at 5:20 a. m., 98.9; at 11 a. m., 99.2; at 1 p. m., 102.2. This last temperature was evidently due to immediate antemortem influences.

Autopsy.—Examination of the abdomen only was permitted. The operative incision was found to be approximately 12 cm. This incision and the entire operative wound and parts adjacent thereto had apparently remained uninfected. There was no hemorrhage, nor was any necrosis of viscera discovered. The intestines and peritoneum were not injected. The kidneys were congested and had the gross appearance of incipient interstitial nephritis. The spleen was congested; the gross appearance of the liver was normal. The aneurism (Fig. 4) extended from just above the celiac axis to 6 cm. above the bifurcation of the abdominal aorta. Its total length was 12 cm.; its width, 12 cm.; (these measurements were taken after the sac was removed from the body and artificially distended.) It was divided into three compartments, one in the median line extending forward 8 cm. from the spine; one compartment on each side of the spine lay alongside of the vertebral bodies. The one on the left extended vertically 7 cm. and that on the right 8 cm., each being about 4 cm. wide. The bodies of the twelft dorsal and first lumbar vertebræ were eroded, the latter being destroyed to a depth of about 2 cm. and the former somewhat less. The aneurismal sac was attached to the spinal column. The celiac axis, superior mesenteric and right and left renal arteries around these eroded areas arose from the sac. The entire abdominal aorta with aneurism was removed.

A close examination of both internal and external surfaces of the aorta failed to reveal the site of the application of the constrictor. In my dog experiments a zone of ecchymosis discovered externally in the adventitia and minor areas of erosion of the intima internally plainly marked the site of the tape and constrictor. No such evidence of violence existed in this case. Only after the specimen had been immersed some time in a weak formalin solution did a relatively pale transverse zone, discernible on the external surface only and approximately the width of the tape, mark the place where it had surrounded the artery. It was thus seen that the constrictor had been placed about 15 mm. above the upper margin of the aneurism and 25 mm. above the celiac axis. The only evidence of traumatism discernible in the neighborhood was such as was presumably due to the removal of the specimen postmortem.[7] A number of small superficial atheromatous areas were discernible in this part of the aorta. Several very small ones were beneath the site of the constrictor.

The aneurismal sac was moderately well filled with large masses of laminated coagula aggregating 350 c.cm. in volume. They were all of recent origin and of different consistency, being most firm where lying in the more direct line of the blood current. Besides these masses there was a small amount of fluid blood and a trifling amount —not more than 1 c.c.—of passive clot.

Pathologic Report.—To Dr. Pauline S. Nusbaumer I am indebted for the following report on the pathologic specimens, which were submitted to her for critical examination:

"In the specimen of aneurism of the abdominal aorta I find no evidence of traumatism, neither macroscopically nor microscopically, at or immediately adjacent to the point of compression of the artery, other than that produced by manipulation during and subsequent to autopsy, and that consists of slight lacerations only. The sclerotic condition of the artery at the site of the application of the constrictor is readily detected by the naked eye, and on sectioning there is seen the thickened intima with the deeply-stained elongated cells of the atheromatous plates, but no round-cell infiltration as one would expect to find in inflammation following injury, nor any necrotic areas such as would be produced by pressure. Eight sections of the aorta in all were made, as nearly as could be ascertained from different areas directly under the tape and constrictor, five from beneath the former and three from beneath the latter.

"The clot, of which two different areas were sectioned, is decidedly stratified and is not of the passive variety. It must be borne in mind that the time was short for many cellular changes to take place in either the vessel walls or the coagulum."

The cause of death, from a consideration of both the case history and autopsy findings, may be reasonably attributed to the inhibition of the functions of the abdominal viscera from the withdrawal of their blood supply.

Notwithstanding the fact that this patient died, the case as a whole warrants a degree of enthusiasm as to the outlook for the procedure. The relatively small amount of distress caused the patient by the presence of the constrictor and its subsequent manipulations; the apparent avoidance of infection; the safe removal of the instrument; the formation of a large mass of laminated coagulum; the apparent maintenance until entire closure of the vessel, of the lumen of the arterial branches arising within the sac distributed to vital organs and without a dependable collateral circulation; but above all the freedom of the aorta itself at the site of closure of perceptible evidence of traumatism, inflammation or necrosis due to prolonged pressure on the vessel—all these facts, I believe, form the basis of a strong hope that a larger percentage than heretofore of patients with aneurismal disease may be brought within the range of relief. If future experience shall fulfill that hope, the method will undoubtedly find its largest scope of usefulness in the treatment of aneurisms of the abdominal aorta wherein ligation is almost necessarily fatal, and other methods are either impracticable or have proved themselves inefficient or fraught with grave dangers.

Certain additional lessons are taught by this experience. The constrictor, under ordinary conditions and with a healthy or but slightly diseased aorta, can be left in place much longer than in this instance. I would not now under such circumstances hesitate to apply it for four days. This will permit the very gradual closure of the artery with the formation of a more firm coagulum. This is of special importance in relation to the treatment of aneurisms which arise high up in this vessel and from which arterial branches arise from the sac to be distributed to the abdominal viscera. It will more perfectly assure maintenance of their lumen. It will also safeguard against failure from the breaking down of the clot and against embolism when the full blood stream is again allowed to flow through the artery; the gradual relaxation of the constrictor after its work has been performed will be an additional preventive of this and will be permissible in view of the proven tolerance of the vessel to a more prolonged contact with the instrument. In the case of its application to the carotid artery, where such an accident would be disastrous, the procedure, in order to avoid this presumptive risk, may best be used as a prelude to ligation after expansile pulsation in the sac has ceased and the cerebral functions indicate the formation of a competent collateral circulation. When we consider that over twenty-five per cent. of cases wherein a single common carotid artery is ligated develop cerebral disturbance and that above one-half of those patients die (Erichsen), and that this result is probably due to failure of the prompt establishment of the anastomotic circulation, this risk does not seem so formidable. The evidence that this necropsy

7. If, by any possibility, a small transverse laceration internally, found to be located at or just below the site of the lower border of the tape, occurred other than during postmortem manipulation, it could only have been due to a defect in the instrument, which was easily corrected, and it need not, therefore, be taken seriously. A lack of sufficient space beneath the crossbars, in the presence of an excess of paraffin on the tape, caused a binding of the latter beneath the bars and an unnecessary amount of pressure on the artery during the removal of the tape.

afforded that practically no clot formation followed complete closure of the artery emphasizes the advantages of gradual over-sudden occlusion.

SCOPE OF THE TREATMENT.

It is with much hesitation that I refer to a possible larger scope for this method in the treatment of aneurism of arteries other than the abdominal aorta, in view of a single operation in man wherein this procedure was put to actual test. Inasmuch, however, as this experience seems to warrant a hopeful attitude as to the usefulness of the method, I may be permitted to take this occasion to point out other possible fields for its successful employment.

Among cases of aneurism wherein surgical attack can be entertained, it seems chiefly applicable: (1) When for any reason, local or systemic, radical operation is inadmissible; (2) In cases wherein it is feared the collateral circulation will not be promptly established in case of complete, sudden closure of the artery. It is to be recalled in this connection that the proportion of patients afflicted with aneurismal disease is large wherein the heart is fatty or its force impaired from other causes, the blood vessels are atheromatous and wanting in the usual elasticity and for numerous reasons the general vitality is reduced. Experience abundantly proves that in just this class of patients the prompt opening of sufficient anastomotic channels to carry on the circulation after ordinary ligation most frequently fails to result, and gangrene, cerebral or other disturbance according to the artery operated on is to be apprehended. In this class, gradual closure, complete or partial, if any operation is permissible, would seem to offer advantages. (3) In those cases wherein heretofore ligation has offered the best prospects, but in which it is desired to avoid the risks of failure and special dangers to life associated with that method. In ligation on the cardiac side of the aneurism close to the sac, (the Anel ligation) we must face all the dangers incident to passive clot formation, e. g.: sloughing of the sac, infection and suppuration of the sac and contents, secondary hemorrhage, gangrene, subsequent softening and breaking down of the clot and consequent failure to cure. Ligation on the distal side (Brasdor operation) in addition to these has its own special danger of rupture of the sac due to the sudden local increased blood pressure. In ligation on the cardiac side at some distance from the sac (Hunterian ligation) secondary hemorrhage, gangrene and suppuration around the sac are to be feared or failure may result from a too free anastomotic circulation forming between branches of the artery arising above the point of ligation and those between the ligature and the sac.

Inasmuch as gradual arterial closure can be carried on with much less traumatism to the arterial tunics than ligation, it will be more generally admissible to apply the constrictor closer to the sac when the presence of atheroma is to be expected, than is the case with the ligature. If this is done, then gradual closure by its control of the blood current, can secure the advantage of the Anel ligation over the Hunterian of the avoidance of the formation of a too free anastomotic circulation around the ligature, at the same time avoiding the dangers resulting from passive coagulation incident to the former method. It will have the special advantage over the Hunterian ligation because of its laminated clot formation in the sac without its risk of failure of too free collateral circulation forming around the ligature. It will avoid the risk of rupture of the sac in the Basdor operation by doing away with the sudden strain on the walls.

It would seem that gradual closure, partial or complete as indicated, secures the desirable features of all these ligation methods, while obviating their special risks. Experience must determine whether there are associated with it disadvantages peculiar to itself which outweigh its apparent claims for consideration over the ligature methods. Equally with them it will share the disadvantages resulting from large arterial branches arising from the sac. In those cases wherein these supply vital organs the decided advantage lying with gradual occlusion has already been pointed out. The application of two constrictors in certain of these cases of aneurisms with aberrant branches—one above and one below the sac—is one of the possible future developments of the method.

911 Market Street.

CASES OF FECAL IMPACTION OF THE RECTUM.*

THOMAS CHARLES MARTIN, M.D.
President Ohio State Medical Association.
CLEVELAND, OHIO.

My reason for presenting for your consideration a few cases of fecal impaction of the rectum is that they illustrate the present great advantage which we possess in the proctoscope as a means for the relief of this condition. Those more or less authoritative works on diseases of the rectum uniformly recommend that the subject of impaction of the rectum be subjected to general anesthesia and irrigation for the removal of the fecal mass. These means should be regarded as hazardous, barbarous and mussy.

The causes of fecal impaction of the rectum are several. Foreign bodies in the rectum, stricture or tumors, within or without the rectum, obstructing its lumen, immobilization of a portion of the rectal wall as a consequence of its adhesion to adjacent viscera, defective innervation, diminished intestinal secretion, the ingestion of improper foods and voluntary or involuntary neglect to make attempts at defecation.

The patient may present the history of gradually increasing difficulty of evacuation of the bowel, or he may report that for a period of a week, or two or three weeks, there may have been no dejecta. Or, on the other hand, he may report that for some time he has been the subject of diarrhea alternating with periods of constipation, the diarrhea being provoked by the presence of the fecal mass. The patient will have a furred tongue, rise of temperature, a quick and rapid pulse. I have seen patients, however, in which there was depression of both temperature and pulse. The intestine will be inflated by reason of the presence of gases, the patient will complain of cramps and a sense of heaviness and weight in the lower abdomen. Often there will be no sensation in or about the rectum excepting sacral backache, and this is usually accompanied by pain and tenderness along the course of the sciatic nerves. The diagnosis may be made by means of the proctoscope or by digital examination of the rectum.

The treatment consists of elevation of the patient's hips and the introduction of the anoscope or the proctoscope, and subsequently the withdrawal of the obturator and the illumination of the rectum by means of the best light available. I have found no more satisfactory

* Read before the American Proctologic Society, Pittsburg, May 12, 1905.

vice than this candlestick (Fig. 1). The electric light here pictured might prove convenient (Fig. 2). Through the proctoscope (Fig. 3), by means of forceps and spoon, without anesthesia and without manual contact with the rectum's contents, the patient may be relieved.

CASE 1.—The first case which I report is that of a woman, 33 years of age, of Canton, Ohio, who had recurrent attacks of fecal impaction as often as once or twice a year. The only way in which the obstruction could be prevented was to secure daily a liquid stool. With much labor and by means of general anesthetics and irrigations her previous attacks had been relieved. Digital examination discovered an obstruction situated about 1½ inches above the levator ani muscle of more or less diaphragmatic form and having a circular aperture. The patient was put into the knee-chest position, the proctoscope introduced, the obturator withdrawn, the field commanded illuminated by means of the candlelight and the obstruction observed. This was seen to be a congenitally malformed valve; it presented a drumhead appearance, and in its right half a circular aperture through which could

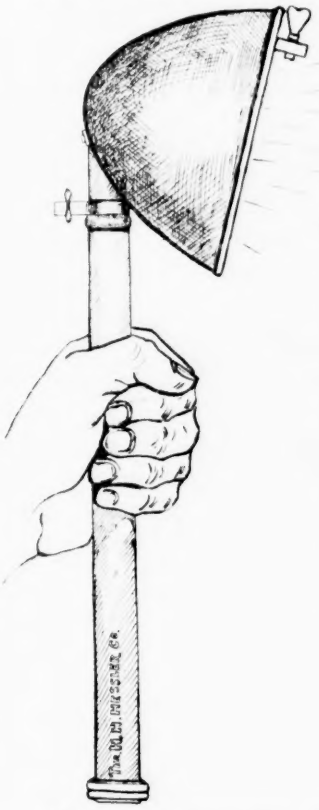

Fig. 1.—The candlestick for rectal illumination.

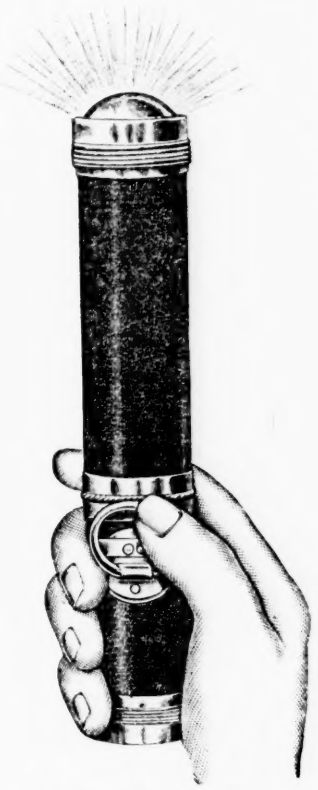

Fig. 2.—The common, portable, storage-battery, pocket electric lamp.

be observed the impacted feces. This malformed valve was now divided and the feces removed by means of the forceps and the lithotomy spoon.

CASE 2.—I was requested by Dr. B. to see a woman of 40 years of age, at her home, on the evening of Oct. 9, 1898. Digital examination discovered fecal impaction of the rectum, from which 2½ pounds of scybalous feces were removed, as in Case 1, after breaking up the masses by means of long-handled scissors. The cause of the obstruction in this case was a fibroid uterus of such size as to extend from the pelvic body to above the sacral promontory, thus effectually preventing the downward and backward excursion of the anterior rectal wall, which is an essential feature of voluntary attempts at defecation.

CASE 3.—In October, 1901, Dr. C. asked me to see his aunt, aged 62 years. I was told that some five or six weeks previously this patient had been operated on for the removal of sarcoma of the tongue. Her obstipation, pelvic and abdominal distress and the presence of a mass, led her physicians to suspect a rectal metastasis. Examination revealed fecal impaction. The mass seemed to occupy the whole pelvic cavity. Inquiry disclosed that the woman had been subsisting on a milk diet exclusively. The feces were of an implastic, putty-like consistency, and weighed about 2½ pounds. This patient was relieved as were Cases 1 and 2.

CASE 4.—I was called by Dr. B. to see a woman, 32 years of age, who reported that since an operation for ventral fixation of the uterus his patient had shown need for laxative medicines. This patient's rectum was impacted and obturated by the presence of scybalous masses, which weighed 3¼ pounds. I believe that in this case the ventral fixation of the uterus anchored the anterior rectal wall immovably in such a degree of suspension that the woman could not effectually bear down. Without distressing her the rectum was readily emptied.

Recurrence is to be prevented largely by the removal of the mechanical cause: In Case 1 by division of the obstructing valve, Case 2 by hysterectomy; in Case 3 there was no organic or mechanical cause; and in Case 4, where the obstipation was the result of the ventral fixation of the uterus, it was inadvisable to resort to surgery. The physical obstruction having been removed, in this class of cases the patient's diet should be limited to meat, fruits and those vegetables which contain but little starch. Albolin should be given daily, the patient required to drink quantities of water and to employ the enema frequently. Proper bathing, massage and open-

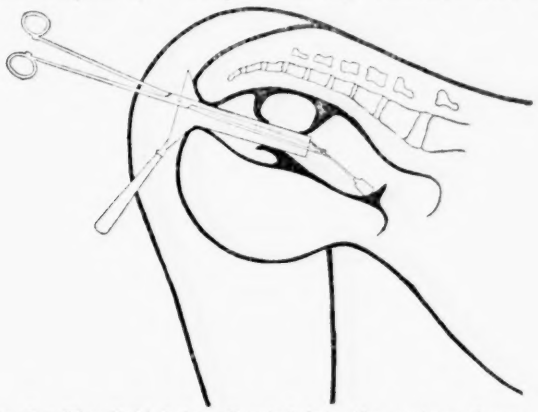

Fig. 3.—The light being directed into the rectum, feces may be removed in the same manner as a foreign body.

air exercises should be insisted on. Cathartics are to be condemned.

I believe the report of these cases calls attention to an obviously simple method for the relief of rectal impaction of feces, and I believe that the more general practice of proctoscopy will render obsolete the employment of irrigation and chloroform or ether in the treatment of this condition.

THE BROAD TAPEWORM IN MINNESOTA,

WITH THE REPORT OF A CASE OF INFECTION ACQUIRED IN THE STATE.

W. S. NICKERSON, S.D., M.D.

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MINNEAPOLIS.

In the last edition[1] of his text-book Osler says concerning the broad tapeworm of man (*Dibothriocephalus latus*). "So far as I know it has not been found in the United States except in a few imported cases." Max Braun,[2] in describing the distribution of this species

1. Sixth edition, p. 29.
2. "Die Thierische Parasiten des Menschen," 1903.

throughout the world, quotes one case as having been reported from North America (Philadelphia). Ward[3] puts it also among the species "recorded from man in N. America, but probably acquired elsewhere." These citations give a fair epitome of the opinion of the best authorities in both medicine and helminthology on the occurrence of this species in America. I believe, however, that in this part of the country, which has a considerable Scandinavian, Finnish, Polish and German population, the worm is very much less rare than is indicated by the opinions quoted. Three cases in Minnesota have come to my knowledge in the past year, all occurring within one year in one town and in the practice of one physician. The worms were secured in all cases and sent to the University of Minnesota, where they are preserved, so that there remains no room for doubt in regard to the species involved.[4]

Dr. Owen W. Parker, Ely, Minn., has not only forwarded these specimens obtained by him to the university, but has very kindly furnished me with all the clinical facts obtainable concerning the cases and given me free permission to make use of such facts for publication. I wish here to make full recognition of my indebtedness to Dr. Parker's courtesy in this matter and to give him full credit for all the clinical facts recorded.

The patients in two of these cases were Finlanders, and the third case occurred in a child of Finnish parentage, who was born in Minnesota and had never been out of the state. This latter case is of exceeding interest, since there can be no question that the infection occurred in Minnesota, and it therefore demonstrates the fact that the broad tapeworm now has a foothold, at least locally, in this country. The facts of significance in the history of the case are as follows:

CASE 1.—*Family History.*—E. P., male, was born April 25, 1902, in Ely, Minn. His parents were born and reared in Finland. The father came to this country in 1891. Three years after coming from Finland he passed a tapeworm (*Dibothriocephalus?*) He had been ill for a year before, had lost in weight, became anemic and suffered from abdominal pains. After the expulsion of the worm he quickly recovered his health and has since been well and has shown no symptoms of infection.

History of Case.—The patient's health began to fail in February, 1904. He did not thrive or gain in weight, became anemic and gave frequent indications of abdominal pain. In August the mother noticed segments of tapeworm in the child's stools and called the physician who successfully treated him. The child has since been perfectly well.

The worm expelled Aug. 9, 1904, measured 7 feet in length and is a typical specimen of *Dibothriocephalus latus.* The scolex was secured and measures 1.75 by .9 mm. The parents say that the child had eaten many times of fish caught in the lakes about Ely and had also eaten salt fish, probably from Lake Superior, but deny his ever having eaten any imported fish.

Infection by the broad tapeworm occurs through the ingestion of the larvae (plerocercoid) embedded in the flesh of certain fresh-water fishes. No less than ten different species of European fishes are known to serve as intermediate hosts, and any of these may therefore transmit the infection. The remote possibility that the infection of the child might have come from eating some imported European fish seems to be ruled out by the statement of the parents that he had never eaten any such fish. I am informed also by dealers that all of the fish which is imported and eaten by the Scandinavian peoples is salt-water fish. The infection could not have come through imported fish therefore, and there seems to be no possible escape from the conclusion that it was acquired from native fish, caught probably in one of the lakes near Ely or possibly in one of the Great Lakes.

It may be idle perhaps to speculate at this late date and in the absence of any detailed knowledge of the facts in regard to this patient's father. One or two suggested inferences may, however, be pointed out. As *Dibothriocephalus latus* is the most common tapeworm among the Finns it is probable that it was the species present in his case. As he had been in this country three years and had complained of being unwell only one year, and *Dibothriocephalus latus* is a very rapidly growing worm, the average rate of growth being as shown by various experimental infections of man not less than five to nine c.m. *per diem,* it would appear improbable that he could have become infected before leaving Finland and not have felt any symptoms within two years after arriving in this country. Without the case of the child's infection—which was surely acquired in Minnesota—this inference would have little significance, but in view of that case, this becomes somewhat more worthy of attention as indicating the probability that the infection of the father may have been acquired in Minnesota.

Concerning the two other Minnesota cases the following data may be given:

CASE 2.—*History.*—A. K., Finlander, male, aged 22, farmer in Finland and woodsman in Minnesota, was in the habit of eating much fish, often not thoroughly cooked. He had already begun to be unwell before leaving Finland, two years previously, and had gradually grown worse. His symptoms, when admitted to Shipman Hospital, Jan. 5, 1904, were headache, anemia, accelerated pulse, marked weakness so that he could not climb stairs, and palpitation. His appetite was good and he had no abdominal pains or other abdominal symptoms. He was muscular and well developed, not emaciated. The mucous membranes were pale, and the skin was of a peculiar lemon-yellow, very suggestive of pernicious anemia. There was hemic murmur and pulsation in jugulars. Blood count 1,000,000 erythrocytes, leucocytes not recorded; poikilocytosis. "In fact," writes Dr. Parker, "the blood specimen looked identical with one of pernicious anemia." After some observation and study of the case, the patient was put on anthelmintic treatment and the worm expelled. His recovery was rapid; in six weeks, when he left the hospital, he had regained his strength and color and his blood count was nearly normal, erythrocytes 4,500,000. No further record of patient has been obtainable since his discharge from the hospital. The worm (worms?) expelled Jan. 23, 1904, consisted of many (nearly 20) short pieces of a total length of 31 feet 7 inches. The scolex was not found.

This case is very interesting from the medical viewpoint, since it illustrates so well the pathologic effect resulting in some cases from *dibothriocephalus* infection and the necessity in all cases of apparent pernicious anemia of examining the feces for tapeworm eggs, since the segments of the worm are voided in rather long chains at infrequent intervals and may thus easily be overlooked.

CASE 3.—The remaining Ely case furnished a very incomplete history. Patient was a Finnish woman, aged 35, somewhat anemic and complained of colicky pains in abdomen at times and some hyperpyrexia. After expulsion of worm her health improved and abdominal pains ceased. The worm (worms?) expelled Oct. 25, 1904, was in pieces, having a total length of about 20 feet, but no scolex was obtained. In this case we have no data which in any way indicate whether the

3. "Precision in the Determination of Human Parasites," THE JOURNAL A. M. A., 1903, p. 703, *et seq.*

4. Beside these specimens procured in Minnesota, there is in the Pathological Museum of the University of Minnesota a specimen of the broad tape-worm procured about three years ago from a Japanese patient in the Northern Pacific Hospital at Missoula, Mont.

infection occurred in this country or before her immigration from Finland.

A question which is at once suggested by these cases is whether the general freedom from the broad tapeworm enjoyed by native Americans is to be regarded as evidence of the absence of the species from our fauna or whether such freedom should be credited chiefly or solely to the American methods of preparing fish for food being such as to destroy any larvæ which they may harbor. For the production of infection it is necessary both that the fish eaten shall contain the larval worms and that it shall be eaten uncooked or only partially cooked. The American methods of preparing fish for food make it possible therefore to have infected fish and yet no resulting infection of man. In fact, larvæ of *Dibothriocephalus* do occur in American fishes. I have obtained them from fish caught in the Great Lakes, but without feeding experiments to rear the adult worm from the larva it is impossible to determine the species of *Dibothriocephalus* and the probability is in favor of such larvæ being of some species other than *latus*—the parasite of man.

It is, however, naturally impossible that there shall be larval worms in American fish without the presence also of the adult worm living in the vicinity in its definitive host. So far as we know the adult *Dibothriocephalus latus* is extremely rare in man in America generally, and there are no reports of its being found in American dogs, cats or foxes—the other animals which are known to serve as definitive hosts for the parasite. Unless the adult worm is much more common that we have reason to believe we can not expect the larvæ to occur at all abundantly or generally in American fish. The dearth of American reports regarding cases of parasitism both of man and animals leaves room for much uncertainty in regard to the accuracy of any such general conclusion as this, however, and we are by no means justified in denying the possibility that the species may be autochthonous in this country and as widely distributed as it is in Europe. On the whole, however, I regard it as much more probable that a merely local infection of the fishes has occurred resulting from the discharge into some of the lakes near Ely of feces from some imported case of *Dibothriocephalus latus* infection. That such infection should have occurred is not surprising in view of the large Finnish population of the region, the frequency of tapeworm infection among the Finns, the fact that the sewage from the town is discharged into a lake, and the large number of species of European fish which are subject to infection by the larval worms. It is unfortunate that the stringent regulations adopted by the government to prevent the introduction of objectionable species of animals and plants are by the nature of the case not capable of enforcement against intestinal parasites.

It is also to be regretted that cases of infection by intestinal parasites are not generally reported by the physicians under whose observation they come so that they become a matter of permanent record available for statistical purposes. Although the accurate determination of the species often requires an amount of technical zoological knowledge which the physician does not have at his command, this only makes it so much more important that the specimens should be preserved and sent to some center where positive determinations can be made and recorded.[5] If medical practitioners generally could be induced to do this it would be the means of accumulating much useful knowledge concerning animal parasitism in this country, a subject that has heretofore received far too little attention from physicians. We need to know more fully what human parasites occur in America, their frequency, their regional distribution, the sources of infection and the pathologic effects which they produce. Every case accurately determined and put on record is a contribution toward this end.

Now that it is shown that infection of American fish by the larvæ of *Dibothriocephalus* is possible and has occurred locally, it is important that all possible measures shall be taken to prevent the infection from becoming widespread. To this end the physician's influence should be exerted wherever necessary to prevent the eating of fish food not thoroughly cooked and to prevent the feeding of raw fish to domestic animals. Where a case of infection by the broad tapeworm is known to exist the thorough disinfection of all fecal discharges should be carried out to prevent the possibility of living eggs being carried into any stream or lake. In cases of *Dibothriocephalus* infection all possible data should be gotten which may tend to show where the infection was acquired.

5. I will undertake willingly to receive specimens of human intestinal parasites from physicians in Minnesota and adjacent states for determination. All specimens should be carefully preserved, and as full data as possible should be sent with them.

INSANITY AS A RESULT OF HYSTEROTOMY AND OÖPHORECTOMY.*

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Gynecologists have generally accepted the hypothesis that the ovaries influence the development of the brain and that their removal is generally followed by consequences disastrous to that organ. Many things have contributed to this opinion. In a great many cases insanities do follow operations for the removal of the pelvic organs. Dudley[1] voiced the opinion of gynecologists when he said: "It would seem as if the ovaries, and probably the testicles, add something to the system which is necessary for the individual's complete development, and by removing the ovaries or testicles you deprive the system of something that causes a perversion of nutrition."

Again, it is the belief that the early removal of the ovaries and testicles causes changes in character in man and in the lower animals. This is true in so far as the sexual instinct is obliterated, and as the sexual instinct profoundly influences the course of life, such as, for instance, the maternal and paternal instincts, the desires for pleasing the opposite sex and the battling with the world with the object of gaining a home, wife and children, the individual is changed to that extent, but there is nothing to show that the early removal of the generative organs in either sex diminishes mental vigor, intellectuality, or is conducive to insanity or to mental degeneration. The doctrine that the ovaries secrete some substance necessary for the preservation of the integrity of the brain will not, of course, hold good for the uterus, and it is well known that the same psychoses which follow operations on one follow operations on the other. Disease of the ovaries, which gradually destroy their function, is rarely followed by insanity, but the operation for the removal of the diseased and destroyed ovaries is often followed by mental disease.

Against the theory that the ovaries are necessary for the preservation of the mental faculties is the fact that

* Read before the New York Psychiatrical Society.

1. A. Palmer Dudley: "The Trend of Gynecologic Work To-day," THE JOURNAL A. M. A., Dec. 12, 1903, vol. xli.

many operations of a major kind are not followed by insanity at all. The fact that many women go through the menopause without mental symptoms can not be urged as an argument either way, because, though the ovaries cease to ovulate after the menopause, they might still secrete some substance beneficial to the nervous system. Insanity may follow any operation.

Picqué and Briaud[2] state that all the surgeons taking part in the discussion of the Société de Chirurgie in 1898 were unanimous in the conclusion that operations on the female genital organs did not predispose to psychoses any more than other operations did. Previous to this, in 1891, the surgeons who took part in the discussion of the Congrés de Chirurgie reached the same conclusion. In this Picqué and Briaud agree. I am not prepared to accept this view of the subject. I believe that insanity does follow more frequently from operations on the pelvic organs than from any other operation. There are reasons for this to which I will refer later.

The forms of insanity which follow operations on the pelvic organs are, first, the toxic insanities. These psychoses have no place in this article because they are caused by toxemia and, therefore, have no direct relationship to the removal of the pelvic organs.

The organic insanities are paranoia, melancholia, presenile delusional insanity, periodic erotic mania and paresis. Paranoia, of course, is not caused by any operation. The individual is born a paranoiac, the operation simply hastening the development of a disease ready to exhibit itself under suitable conditions. Nor can paresis be regarded properly as a postoperative psychosis. The syphilitic basis must be present in this disease. The operation with its exhaustive consequences simply develops a disease already present.

The causes for insanity, following operations on the pelvic organs, are, first of all, heredity and congenitally defective brains. I do not believe it is possible for any psychosis to develop after any operation on the pelvic organs in a healthy brain.

The psychologic causes are not by any means unimportant—the fear of death from the operation, disappointment at not being able to bear children, and the consequent curbing of the maternal instinct, the fear of the loss of the husband's love, the fear of becoming cold and indifferent to the husband, and the fear of acquired masculinity—all exert a powerfully depressing effect on the mind, and contribute, in a brain predisposed to insanity, a great influence in developing psychoses.

Such physical causes as anemia, neurasthenia and the breaking down of the general health from long-continued disease, also influence a tendency to the development of a psychosis. In almost all cases the patient has suffered for months and even for years from an exhaustive disease before operative procedures are advised, and this exhaustion and malnutrition is certainly influential as a causative factor in insanity. Surgical shock is by no means an unimportant cause.

My position on this subject is that the ovaries and uterus have nothing to do with the preservation of the integrity of the brain, and that their removal alone never causes insanity; that the insanities which follow operations on these organs depend on a hereditary tendency to insanity, the psychologic causes and the physical causes, and the surgical shock already referred to, but that the principal cause of all is the congenitally defective brain.

2. Picqué and Briaud: "Etudes de psychoses postoperatoires," Arch. de Neurol., Second Series, No. 15, 1903.

THE NAUHEIM BATHS AND TREATMENT OF HEART DISEASES.

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During my stay in the United States an article by Dr. J. M. Anders[1] of Philadelphia on the action of the Nauheim cure attracted my attention. I deem it my duty to say a few words in reply to his statements, both in the interest of Nauheim and of Americans suffering from heart diseases who are unable to visit Nauheim for relief.

Those not acquainted with Nauheim and the prevailing conditions who read these statements must be led to the conclusion that it is a generally accepted practice at the place to treat heart disease with gymnastic exercises. This is by no means the case. The fact is that out of fifty physicians practicing in Nauheim the Schott treatment is solely applied by Professor Schott. A number of the Nauheim colleagues still occasionally permit the patients to exercise with the Zanders apparatus, but not until the muscles of the heart have been sufficiently strengthened by the bath treatment, which means near the termination of the cure. Then they apply preferably apparatus which produce passive movements, and particularly movements which tend to induce deep breathing without the least active exertion on the part of the patient, thereby not causing overworking of the heart. The number of physicians who reject even these apparatus is considerable. They rely mainly on the baths; prescribe all the rest possible and try with the aid of additional means, such as massage, diet, etc., to unburden the heart. During the last season over 26,000 people came to Nauheim to take the bath treatment. Of this number certainly by far the majority were not treated by the Schott method. In spite of the absence of this treatment, the results have been, to say the least, equally as good. Therefore, I am fully justified in the assertion that Dr. Anders has given the gymnastic treatment an importance to which it has absolutely no claim. To attribute recovery from diseases of the heart in Nauheim to the exercises is absurd; it is the Nauheim baths, plain and simple, which constitute the essential curative factor. Before entering more specifically on the bath treatment I wish to explain why I could not—without harm to the interest of patients not able to visit Nauheim—allow the misleading statements of Dr. Anders to remain unchallenged.

Frequently during my stay in the United States I have had the opportunity to discuss with my American colleagues the treatment of heart diseases in general. Invariably I have been informed that heart patients were subjected to gymnastic exercises, and in many instances I was referred to articles on this subject published by Schott, Thorne and other authors, and more than once my attention was drawn to Dr. Anders's paper. I was repeatedly assured that following gymnastics the area of dullness was diminished and the pulse rate reduced. But does that actually prove anything for the efficiency of gymnastics? I hardly think it does. On the contrary, I consider gymnastic exercises in most cases of heart diseases, especially myocarditis, under all circumstances very dangerous. Gymnastics are not without danger in any case, because in all cases of heart diseases the myocarditis is more or less affected, too. It is the more dangerous where the neutralizing

1. THE JOURNAL A. M. A., Jan. 14, 1905, p. 116.

agent of the Nauheim baths can not be given at the same time to counteract the damaging effect of the exercises. In other words, I consider the treatment of heart disease with exercises, especially in those cases where the Nauheim baths are not available, extremely dangerous. Where a diminution of the area of dullness has been found, following gymnastic exercises, there is by no means a certainty that the actual size of the heart has decreased. At best the percussion of the heart is of a conditional value. To be of value it is necessary that the consecutive examinations by percussion are to be made under exactly the same conditions. The position of the heart is changed with the variations of the amount of the stomach's contents, and in like manner an expanded lung replete with air changes the boundaries of the area of dullness. In support of the latter contention in particular I refer to the work of my Nauheim colleagues, Grote and Reissner.[2] Both colleagues have by an extensive series of very carefully conducted investigations determined that the bath produces an increased depth of the respiration, and the consequent expansion of the lungs causes the deceptive appearance of the reduction of the size of the heart. The same increased expansion of the lungs, which also follows the deep respiration which Schott advises during the exercises, must be held responsible for the reduced pulse rate—not the gymnastic exercises.

Schott contends that by gymnastic exercises, by vigorous stimulation of the heart's action, in one of his first publications on this subject—if I am not mistaken—he uses the term *Herz-Turnen*—the muscles of the heart are strengthened. He assumes in this connection that the same conditions prevail with the diseased muscles of the heart as with weak and poorly developed external muscles of the body under voluntary control. There can be no doubt that muscles, otherwise healthy, that are below the average in their development may through systematic exercises be brought up to the normal, and more emphatically I contend that this capacity can be increased above the standard. I need only refer to the excellent results of physical culture and scientific training under the direction of competent men practiced at your American colleges and universities. With patients visiting Nauheim we do not deal, except in the rarest instances, with healthy or merely poorly developed heart muscles, but with pathologic changes, and often with degenerative processes, sometimes of the gravest nature. Weak and diseased muscles of the heart can never be strengthened by increasing their burden, but by lightening it, which means rest. It has been my experience that absolute rest of the heart, through diet, massage, sun baths, etc., are followed by the more certain results. I trust the reliability of my observations will not be questioned, as the greater part of my patients are constantly under my supervision, i. e., those who stay at my sanatorium.

Now, in regard to the influence of the Nauheim baths, I can readily understand that anyone who lacks the opportunity of observing a greater number of heart cases in the place itself will consider the matter somewhat skeptically. It appears at first thought incredible that twenty or thirty baths, or even a few more, should bring about such potent influence on a diseased organ, and yet this is actually the case. The fact that the number of patients afflicted with heart troubles in the last decades has annually increased considerably in Nauheim tends to show that more and more physicians and patients alike are becoming convinced of the efficiency of the Nauheim baths.

What produces the effect of the bath? In my opinion, we need not look for a difficult explanation. In all chronic diseases we find metabolic disturbances. We all know that the lymphatic circulation bears a very important relation to metabolism. Now, the plain water baths bring about a stimulating influence in moving the body fluids, and in a more marked degree this action is found where the baths contain an increased amount of salts. Add to this the proper conditions of temperature, the presence of carbonic acid gas, as in the Nauheim waters, and other agents of physico-chemical nature, which have not yet been definitely determined, and the action of baths is increased to a vigorous stimulation of the lymphatic circulation. In addition, Nauheim enjoys the exceptional advantage of a great variety of bathing forms, which enables us to grade the baths to suit the indications of the weakest as well as the more resistant patient. It naturally follows that a thorough treatment at Nauheim is to be preferred to one at home. But not all patients suffering from heart troubles can visit Nauheim, and for various reasons a great number must be content with home treatment. If at Nauheim it is proper to aid the baths by dietetic treatment and measures directed toward unburdening the heart—these include the Abée heart-support—certainly all these must apply in a larger scale to a treatment at home where the artificial substitute must naturally fall behind the efficiency of the original Nauheim baths. At any rate, over-exertion of the diseased heart, gymnastic exercises in whatever form, can not be too strongly condemned.

2. A report appearing in the Münchener med. Wochft., October, 1903.

THE MEDICAL PROFESSION AND THE MEDICAL JOURNALS IN RELATION TO NOSTRUMS.*

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Primarily, the medical profession is to blame for the present extensive use of proprietary medicines, of which the majority are nostrums.

The law of demand and supply applies here; if we did not prescribe them, they would not be manufactured.

"There's millions in it." The medical profession is blind; we do not see that we are the dupes of men as fertile as Colonel Sellers in schemes and far more practical than he, in that they put their plans through to a finish.

Commercial cupidity exists in all the walks of life. It is small cause for wonder that shrewd men should take advantage of an opportunity that is lucrative and at the same time so easily exploited.

As it seems to me, the chief causes are evident. A large number of the medical profession do not practice medicine rationally. They have no clear conception of disease processes. They do not study and examine their patients. No diagnosis is made at all, or only from subjective conditions. Symptoms are treated. Headache, backache, indigestion, albuminuria, cough, constipation, dysmenorrhea, insomnia, nausea, dyspnea, etc., call for drugs, with usually no attempt to get at the underlying cause. I regret to say it, but I believe that many, many

* Read at the meeting of the Suffolk County District Society of the Massachusetts Medical Society, Jan. 3, 1906. A report of this meeting, with the discussion, appeared in THE JOURNAL, Jan. 20, 1906, p. 220.

physicians practice medicine on that basis. Think, for a moment, of the vast number of proprietary mixtures, usually nostrums, advertised and distributed in samples to physicians as symptomatic cures.

This sort of practice requires a vast number of these nostrums. He who treats symptoms must necessarily change the medicine from time to time to satisfy and to hold his patients. He relies on ready-made, symptom-indicated, dose-directed, usually palatable medicine. He believes what he reads in the "literature" of nostrums sent to him or as it appears in the advertisement found in his medical journal. He forgets that this testimony is inserted for pay. He sees testimonials from professors and practitioners praising the remedy and he believes.

But he is fickle and drops his last specific cure-all for a new one, which comes to him in sample, by mail, or is presented to him by the traveling agent in a confidential and instructive (?) way, and again he believes. He forgets that this agent is either a doctor, who has failed as a practitioner, or an ex-drug clerk whose full worth is commanded by ten or fifteen dollars a week. Usually the physician is told that the preparation is ethical, and that its formula is published (usually, however, without indicating the amount of the constituents of the mixture contained in a dose). The process of manufacture is dwelt on—"after painstaking research" the mixture is so put up that new and heretofore unheard of potency is developed in it.

It is a common experience of druggists to have a rush of prescriptions for a nostrum which has just been sampled to the physicians in the neighborhood.

For ways that are dark the exploiters of copyright preparations are sufficient and proficient. The nomenclature of these compounds is a wonder. No especial system is followed. A catchy name appears to be the main thing. The name may consist of a euphonious combination of the alleged ingredients; of a morbid symptom or process combined with a drug; of a name indicating the alleged number of ingredients in the mixture, or of any coined word that is striking in print or sound. So we have Sanmetto, Ferroleum, Salochinin, Peptomangan, Uric-Antagon, Antiphlogistine, Zymoticine, Gonosan, Anasarcin and Antikamnia, Duotonol, Quartonol and Sextonol, and Utrolene, Chionia, Cystogen, etc., as examples. Apeitzo is a breakfast food, and the name makes one hungry. It is said to be an iron food. Apetol is a medicine, a strengthener which strengthens, composed of a dozen or more drugs. Rheumagon suggests a possibility that the "rheum" had "gone," but it is said to contain sodium iodid and sodium phosphate, and to cure rheumatism and all conditions resulting from uric acid in excess and disturbed metabolism. This is not the only uric acid annihilator, for they are numberless. The average proprietor of a trademark preparation looks on uric acid as one, if not the worst, enemy of mankind. He offers us uric-acid solvents in the form of natural mineral waters (recently these are radioactive as well), artificial waters, salines, plain and effervescent—all things to "touch the liver," and so every one concerned is happy, except a majority of the patients.

Often a chemical or drug is used by different proprietary firms in a mixture of other and often indifferent substances and presented in powders, tablets, etc., under different copyright names. For instance, Hexymethylene-tetramine, which is recognized as an excellent antiseptic in diseases of the urinary apparatus, is exploited in mixture in a dozen or more trade names by as many firms. Cystogen, uriform and aminiform are examples. Acetanilid is exhibited in mixture as bromoseltzer, antikamnia, orangeine, phenalgin, ammonol, megrimin, etc., by different proprietary houses. Some of these mixtures have even been presented as synthetic chemicals. Well-informed physicians believed this until the Council on Pharmacy and Chemistry of the American Medical Association made known the formulæ after analyses of the mixtures.

It may be well to say, in passing, that mixtures which contain poisons, like opium and its derivatives, chloral, cocain, strychnin, arsenic, acetanilid, should be properly labeled, with the amount of the drug contained in the mixture. It is a common occurrence in Chicago to find patients suffering from chronic acetanilid poisoning due to the continued use of the mixtures which contain acetanilid, but which do not indicate the presence of the drug in the preparation. They are advertised as cures for fevers, colds, cough; as tonics, as "bracers," etc.

I am very sorry that acetanilid was made official in the last Pharmacopeia as Pulvis Acetanilidi Compositus. I think it too dangerous a drug to be used as a medicine, and especially when there are so many harmless substitutes.

But to return to the nomenclature. It is contrary to all scientific standing and progress. It is meaningless. Without a scientific terminology, pharmaceutical preparations can not be studied or learned. The deception practiced by the nomenclature of the nostrums is detrimental to all scientific progress and to the morals of the profession and is harmful to humanity. But the nomenclature is linked with a most astounding statement of physiologic action and therapeutic indication in the "literature" of these preparations and in the advertisements in medical journals. Let me quote a few of these statements:

"Hexamine." "It is invaluable in cystitis of all kinds, albuminuria, gout, gravel, incontinence of urine, pyelitis, pyelonephritis, renal and vesical calculus, phosphaturia, rheumatism and irritable bladder from any cause. In typhoid fever it prevents the spread of the infection and destroys the colon bacillus."

Who could ask for anything more definite and universally applicable?

"Sanmetto is not an excitant or stimulant. Its purpose is soothing, healing, restoring. It soothes the irritation, heals the diseased mucous membrane and restores tone to the enfeebled parts. By its use the genitourinary organs are builded up to a state normal with the age of the patient, and thus at the same time any pathological conditions that may be present as a result of their impairment are relieved or cured."

This negative and positive statement of a tonic which soothes and heals and does not excite or stimulate but cures is better than the fabled fountain of youth.

"Antiphlogistine." "It depletes the visceral blood vessels by flushing the superficial capillaries—bleeds but saves the blood."

I wonder if any sensible-thinking doctor believes this. If he does, I'd like to know why.

"Casca-Aletris." "A laxative utero-ovarian tonic, alterative and sedative." "It contains the purely active matter from aletris, cramp bark, wild yam, squaw vine, black haw, blue cohosh, golden seal and cascara sagrada, the inert and objectionable elements being eliminated. Free from alcohol and sugar. Very palatable. A decided advance in modern therapeutics."

Could you ask for any better example of a "shotgun" dose, and that, too, a laxative, a tonic, a sedative and alterative!

"Tongaline." "Antirheumatic, antineuralgic. Cures rheumatism, sciatica, lumbago, grippe, neuralgia, malaria, headache, gout, because Tongaline contains standard remedial agents of absolute purity, combined with salicylic acid made from the natural oil of wintergreen. Tongaline acts upon the poisonous products of retained excretion or perverted secretion and eliminates them promptly and thoroughly, thus insuring in every instance certain results from certain doses in certain time."

Verily, this is too much! At this rate there will be no reason to die. The practice of medicine with tongaline is too easy.

"Pil Orientalis (Thompson)." "The therapeutic value of ambrosia orientalis (imported solely for ourselves) as a powerful nerve and brain tonic and powerful stimulant of the reproductive organs in both sexes can not be overestimated. It is not an irritant to the organ of generation, but a recuperator and supporter."

This ought to answer, once for all time, the statement of certain quack advertisers of "Lost manhood, how restored"!

"Sulpho-Lythin." "Is a true hepatic stimulant, intestinal, antiseptic, antizymotic and toxine eliminator."

This is almost as good as the statement of the old woman of Irish extraction who praised the effect on the bowels of sulphur and molasses: "Sure, the molasses 'iles 'em and the sulphur moves 'em."

"Anascarcin." "Absolute cure of dropsy caused from heart, liver or kidney troubles."

These are strong words, but they are justifiable. From every quarter come enthusiastic reports of clinical results accomplished by prescribing anasarcin, not only in dropsies, but in exophthalmic goiter. All those natural speculations in the doctor's mind as to the usefulness of this remedy should be immediately dismissed."

The statement of an absolute cure for dropsy, of any cause, is enough to condemn a preparation.

"Glycozone is daily making converts among physicians for its wonderful work in inflammatory and contagious diseases of the alimentary canal. It is the rational treatment in gastric and intestinal disorders, such as dyspepsia, gastritis, gastric ulcer and all contagious and inflammatory diseases of the stomach and intestines."

Such converts as this stuff makes among physicians are not worth saving.

"Physicians everywhere prescribe Triacol (Alpers) with unequalled success and perfect satisfaction in bronchitis, coughs, pharyngitis, laryngitis, phthisis tuberculosis. They prescribe it because it cures."

It is prescribed because it cures tuberculosis, bronchitis, laryngitis, etc. The physician who would prescribe it on the basis of the statement made should have his license taken from him.

"Aletris Cordial Rio is indicated as a prophylactic remedy against postpartum hemorrhage, uterine weakness, great development of the fetus and of the adnexa, and in those cases where there is a disposition to hemorrhage."

A prophylactic against uterine weakness (what is it?), great development of the fetus! Good Lord! What next?

These are some of the statements made in the advertisements of a few of the many proprietary medicines. The majority of the quotations are from medical journals. One is not surprised to receive the scarlet literature of the nostrums through the mail. Nor is one especially shocked to find reports of impossible cures and astounding statements in the medical trade journals, for such journals are published wholly in the interest of proprietary houses; but one is disturbed to find that the regular and otherwise respectable medical journals publish such rubbish as I have quoted. Such advertisements will be found in the *Medical Record, New York Medical Journal, the Medical News, The Boston Medical and Surgical Journal, American Medicine, British Medical Journal* and *London Lancet*. Recently the pages of THE JOURNAL of the American Medical Association have been purged of some of the objectionable advertisements, but still advertise some medicines with very objectionable statements as to the therapeutic effect.

Now I, and I think most people, believe that the advertising pages of a medical journal are a legitimate part of the publication. Editorial responsibility should extend to every part of it. There can be no question of the harmful effects on the profession of the flood of nostrums. It is injurious, therefore, to promote in any way the use of them. The editor of a medical journal can not escape the responsibility of the character of the reading matter, and the influence it may have, which appears in his journal.

The term "ethical" appears in many of the statements of the proprietors of nostrums. The word covers a multitude of sins. The Standard Dictionary defines ethics as "the science of human duty; the science of right character and conduct." The alleged curative properties of preparations quoted above and of many others advertised in medical journals and in the other "literature" circulated in various ways do not conform in any way with the definition of the word.

Indeed, the method of advertising these "ethical" preparations in the medical press would, with very little alteration, fit any "patent" medicine advertised in the lay press.

To illustrate I quote from the lay press:

"What is Castoria? Castoria is a harmless substitute for castor oil, paregoric and soothing syrup. It is pleasant. It contains neither opium, morphin nor other narcotic substance. Its age is its guarantee. It destroys worms and allays feverishness. It cures diarrhea and wind colic. It relieves teething troubles, cures constipation and flatulency. It assimilates the food, regulates the stomach and bowels, gives healthy and natural sleep. The children's panacea—the mother's friend."

This is, like the "ethical" advertisement in positiveness of statement, both affirmative and negative.

"Tonsiline is the greatest throat remedy on earth. Tonsiline cures sore throat of all kinds very quickly and is a positive, never failing and speedy cure for sore mouth, hoarseness and quinsy."

As this appears in a newspaper, the profession will say it is a quackish statement made to fool the laity. But as bad and worse statements concerning nostrums appear in medical journals.

"Ask your own doctor; if he tells you to take Ayer's Cherry Pectoral, for your severe cough or bronchial trouble, then take it. If he has anything better, then take that; only get well as soon as possible, that's the object. Doctors have prescribed this medicine for sixty years. We have no secrets. We publish the formulas of all of our medicines."

Now, can you see any great difference in the alleged curative powers and the therapeutic indications of the preparations quoted from the lay journals and the medical press? In fact, there is none. The language used in the advertisements placed in the medical journal is a little more technical and, for that reason, is often not so rational as the statements made in the lay press.

The medical press is an educator. Through it, more than by any other means, medical knowledge is widely disseminated. It is a power which, when properly directed, yields untold riches for the benefit of the medical profession. But it has an equal power for evil. If

it, as an educator, contains material which is false and misleading, even though this is confined to its advertising pages, it does an infinite harm to the profession and to mankind.

I have not met an editor who defends the practice of advertising nostrums. Confessedly it is done for money, not for the editor, but for the publisher. The excuse offered is that the editor is engaged to edit the medical articles; the publishers print the journal and supervise the advertising department; but this is not explained to the reader. To the average man all printed statement is fact. He believes the printed word when he would doubt the oral statement. This is the result of our methods of education of children. They are taught to believe all they read. Many persons never discover the fact that, as Burns says:

> Some books are lies fra end to end,
> And some great lies were never pen'd;
> Ev'n ministers, they hae been kenn'd,
> In holy rapture,
> A rousing whid, at times to vend,
> And nail't wi' Scripture.

The proprietary medicine evil is due chiefly to the credulity of the medical profession. The cupidity of the proprietors and promoters is the second cause, and, unfortunately, the medical journal lends itself to the exploitation of the nostrum.

Few of us probably realize the extent to which the use of proprietary medicine has grown in a short period of time. To judge by the prescriptions filled in drug stores of large cities, at least 50 per cent. of the members of the profession use proprietary medicines.

The statement is made[1] that in New York City about 70 per cent. of the prescriptions filled in large drug stores call for proprietary preparations. This statement is a general one and probably not definite.

In Chicago I have secured data from two drug stores. In one large downtown drug store 42 per cent. of the prescriptions contained proprietary medicines. This pharmacy fills the prescriptions of physicians who in many instances occupy high places in the profession.

The second drug store is in a residence neighborhood where chiefly the prescriptions of the family physicians are filled. This showed about 50 per cent. of prescriptions calling for out-and-out proprietary mixtures or containing, in part, a proprietary chemical or drug. One prescription was for Castoria and California Fig Syrup, equal parts, with directions to take a teaspoonful every two hours.

In Boston there was secured the data from two of the best known druggists. In one, in which 14,895 prescriptions were filled in a year, 38 per cent. were proprietary; in the second, in which 12,000 prescriptions were filled in a year, 48 per cent. called for proprietary medicines.

Modern medicine has established the fact that specific medication for disease is very limited. The specific sera, used as antitoxins and bactericides, organotherapy in a very limited field, quinin in malaria, and mercury and iodids in syphilis, comprise the list. A rational use of drugs, preferably in simple form to stimulate or to maintain the physiologic function of organs embarrassed by unhygienic habits, by an acute infective process or partially crippled by a morbid anatomic process, is the chief reliance of the physician.

Palliation of suffering is an important therapeutic measure. The rational, careful and conscientious physician primarily attempts to make a definite diagnosis. The removal of the cause, when possible, is an important step with a rational management of the personal hygiene. The drug treatment may be a very important part of the management, and it requires a fine judgment to know when and what to give in disease, as well as when not to give anything.

The Pharmacopeia furnishes a list and description of chemicals and drugs, more than enough to meet the wants of the most ardent believer in drug therapy. A good pharmacist can furnish the official water, pill, powder, spirit, solution, elixir, tincture, fluid extract, syrup, etc., of the drugs prescribed. The Pharmacopeia gives the physician the complete and definite official mixtures. He will be able to furnish his patient with drugs at their true value. The pharmacist will not be obliged to pay a hundredfold price for the proprietary preparation, which, in the end, is assessed on the patient. Acetanilid may be bought for not more than from 25 to 30 cents a pound. If prescribed in the copyright preparations it costs many times the trade price.

Scientific progress, professional integrity and character and economy demand the restriction of the proprietary medicine evil. To restrict it, the medical schools should teach the student, more fully and adequately, botany, pharmacology and therapeutics. The medical graduate must know how to observe and interpret the phenomena of disease, and he must know equally well the materials and how to use them with which he may combat disease. He should know pharmacology and prescription writing; he should know the therapeutic value and power of drugs and their limitations. With a proper fundamental knowledge of this kind, the daily experience will add valuable information in drug therapy which will not be disturbed by the alluring advertisement of the nostrum exploiter.

To overcome the present evil will require publicity. By this means we may be able to arouse the dormant good sense of our erring brother practitioner and induce him to use simple tried and official drugs. We must induce the physicians to attend medical meetings and to rub against their fellows. But at these meetings we must not permit the exhibition, under our auspices, of pyramids of proprietary medicines and stacks of more "literature" than is offered at the scientific sessions. We must discountenance the practice of the "faculty" and the practitioner in writing testimonials of the wonderful effects of these cure-alls.

We must induce our medical journals to stop advertising nostrums. The editors of the great journals of the country are to be numbered among the best members of the profession. If they choose to do so, they can permit the advertisement only of those proprietary medicines which furnish for publication, in the advertisement, an authentic, definite and complete formula. They should also edit the reading matter of allowable advertisements and prevent the abuse of overstatement and the publication of untruths. Secret mixtures and mixtures with incomplete formulas or with indefinite statements as to the constituents should be refused space in the reputable medical press. With the publication of accurate formulas the physician would be able to judge of the possible virtues of the mixtures. To most of us, mixtures with known formulas are objectionable. Disease is never quite the same in different individuals, and the morbid phenomena are not often expressed in the same form from hour to hour and day to day. The treatment must be modified to meet the varying prob-

1. James J. Walsh, M.D., THE JOURNAL A. M. A., vol. xlv, No. 23, p. 1702.

lem of the morbid process. This can be done much more helpfully with simple drugs than with intricate mixtures.

Secrecy is essential to the success of the nostrum evil. Publicity will kill it. Publicity will educate the physician and the public and teach them not to use secret mixtures which often contain poisonous chemicals or drugs which are kept secret for the purpose of assigning to them alleged virtues and that an extravagant price may be obtained.

Finally, I desire to express sorrow that the present status of the nostrum evil compels me to say a word of complaint of the medical profession. Many physicians to whom I have talked have expressed themselves as more or less guilty of prescribing proprietary preparations. All agree that it has been done thoughtlessly and that the practice has insiduously grown on them. Many have said that it is unnecessary, is detrimental to scientific medicine, and that the exposé of the Council on Pharmacy and Chemistry will have a most decided effect in educating the profession not to use nostrums.

100 State Street.

Special Article

THE PHARMACOPEIA AND THE PHYSICIAN.

CHAPTER XI.

INTERNAL ANTISEPTICS.

The great strides made in the use of antiseptics, after Lister had employed them in surgery with such brilliant results, led to the hope that they might be made available for limiting the development of bacteria in various parts of the human body. From time to time clinicians have reported favorable results from the use of internal antiseptics in such diseases as typhoid fever, but at the present time it is generally acknowledged that complete disinfection of the intestinal tract is impossible and that the treatment of constitutional diseases by means of antiseptics is possible only in a few isolated cases; for example, in malarial fever by quinin, in articular rheumatism by salicylic acid and its compounds, and in syphilis by means of mercurials. Quinin has been shown to have a peculiarly selective and destructive action on the protozoön which causes malarial fever, and perhaps mercury and salicylic acid may possess similar selective action against the agents producing syphilis and certain forms of rheumatism. It is no longer considered probable that there will be found any agent or group of agents capable of rendering the blood and tissues sterile to all or to any considerable number of bacteria; but it is admitted that we may yet find many agents, each exerting an influence analogous to that of quinin in malarial fever; we may limit ourselves, therefore, to discussion of the probable action of antiseptics on the alimentary canal and of the three substances just enumerated.

It is impossible to form a correct idea of the probable effect of an internal antiseptic without having at least some idea of the organisms on which it must act. Nuttal. and Thierfelder took guinea-pigs from their mother by Cesarean section under aseptic conditions, and fed one of them on sterilized food for thirteen days, during which it continued to thrive, but Schotelius found that chickens died of starvation when fed only on sterilized food. G. N. Stewart accepts Nuttall and Thierfelder's results as demonstrating that animals, including man, exist despite the bacteria which infect the alimentary canal from a few hours after birth until death.

Strassburger concludes, from a review of the extensive literature pertaining to intestinal bacteria, that Nuttall and Thierfelder have shown that no single process of alimentation is absolutely dependent on bacteria, but that the chief function of certain of them, notably the colon bacillus, which is always abundantly present, is actually to destroy other bacteria and thus to protect the host against those disease germs which may gain entrance to the alimentary canal. The destruction of all the bacteria in the alimentary canal at any one time, therefore, might prove fatal, in that any disease germs which chanced to gain access to the intestine could so multiply as quickly to destroy the life of the host.

The proof that bacteria do play some part in the process of digestion is found in the fact that man can digest the cellulose of delicate vegetables to a limited extent, though he secretes no enzyme capable of splitting cellulose, which, therefore, must be split by bacteria present which have been shown to possess that power. Then, too, certain crystalline bodies other than leucin and tyrosin have recently been found among the ultimate products of digestion, and as none of the known digestive enzymes are capable of forming these bodies they likewise must result from bacterial action.

While we must admit that bacteria are concerned in digestion, we have no positive information at the present time as to how important a part they actually take. It has been shown that the colon bacillus, which is universally present in milk, inhibits, to a certain extent, the action of putrefactive bacteria, and it is well known that untreated milk of good quality is more digestible than is the same milk after sterilization.[1]

We are thus forced, by this and other like evidence, to conclude that it is by no means desirable to render the intestines sterile and that, instead of attempting intestinal antisepsis in the broader sense, we should seek rather to modify the flora in that region than to destroy it.

Various methods have been proposed, from time to time, for determining the relative degree of putrefaction taking place in the intestines, but at the present time it is not positively known what constitutes the best method at our disposal for doing this. The procedure most frequently employed, one which is considered to afford a fair estimate, in a large proportion of cases, consists in estimating the ethereal sulphates in the urine. Strassburger claims that weighing the bacteria after separation from the feces and drying affords the surest means of estimating the number of bacteria present. Others count the number of colonies which can be cultivated from a milligram of feces, but this has been shown to be unreliable. In view of the fact that laboratory methods are far from satisfactory in determining the number of the several varieties of bacteria present in the feces, the general practitioner will probably be obliged, for some time to come, to depend largely, if not entirely, on the clinical data presented by each individual case.

Without knowing the precise rôle played by the multitudinous bacteria of many species, we do know in various ways when undue activity of the putrefactive bacteria occurs, and certain symptoms give notice that excessive fermentation is taking place in the small intestine. A moderate increase in the number of colon bacilli tends to lessen the development of the

1. Tests made on the several constituents of milk show that they have no power to inhibit putrefaction, though such a power is unquestionably possessed by fresh milk. That this is due, at least in part, to certain bacteria normally present in the milk is shown by the fact that sterilized milk putrifies much more rapidly than untreated milk on the addition of the bacillus of putrefaction (*B. putrificus*); but if with the *Bacillus putrificus* the colon bacillus be added to sterilized milk, the milk acts as does normal milk, thus proving that the colon bacillus is actually capable of inhibiting the development of certain bacteria. It is, of course, possible that fresh milk also possesses antibacterial properties which are destroyed by the sterilization. These conditions help to explain why sterilized milk is not so wholesome as new milk of good quality. It must be remembered, however, that milk is an excellent culture medium in which a great many bacteria are normally present, and that if it be allowed to stand in a warm place for home hours the micro-organisms multiply to such an extent that the milk is wholly unfit for use, and we do not wish to be misunderstood as implying that the colon bacillus is an unmixed blessing. While, during health, this micro-organism probably does not emigrate from the uninjured intestine it may do so in states of lowered general resistance, or in the presence of defects of the intestinal epithelium, and may give rise to blood infection, or more rarely to inflammations in various organs. The possibility that the bacillus of typhoid fever and kindred forms are only modified colon bacilli is of theoretical importance. Some authorities (Escherich and some others) deny that the colon bacillus is capable of rapidly becoming virulent. Different strains of the colon bacillus have different degrees of virulence, and it still remains possible that many cases of infantile colitis are caused by certain strains (e. g., the colicolitis of Escherich).

putrefactive germs; on the other hand, an intestinal catarrh, caused by excessive acidity resulting from the undue fermentation of carbohydrates by the colon bacillus, may be alleviated by lessening the carbohydrates of the food and consequently the medium on which the colon bacillus thrives.

Normal peristalsis, by hurrying the food through the small intestine, prevents undue development of bacteria, but diarrhea and irritant purgatives favor the development of bacteria by the increased amount of liquid which is present, because of the increased secretion or diminished absorption. Thus more bacteria have been found after administration of calomel than were present before the drug had been given, though calomel is generally considered to be an excellent antiseptic.

While normal peristalsis limits the development of bacteria, the latter, in turn, liberate acids in the decomposition of carbohydrates, which probably supply the stimulus which sets up peristalsis. The normal digestion and absorption of food also tend to lessen intestinal putrefaction by lessening the amount of material which can serve as a culture medium.

It is important that the intestinal wall should be kept intact. When the intestinal mucosa is injured it fails to absorb the food products and the bacteria multiply rapidly. It has been found that many antiseptics injure the intestinal wall more than they do the bacteria, and, despite the fact that the antiseptic may be found in quantity in the feces when the bulk is small, it has actually permitted an increased growth of micro-organisms in the small intestine when other conditions favored the bacteria and not the antiseptic action. Strassburger found just double the number of bacteria after the use of naphthalene, which has been considerably lauded as an intestinal antiseptic.

As suggested before, the simplest means of diminishing the number of putrefactive bacteria is by lessening the amount of the proteid of the food. Though it has been contradicted by the indirect evidence of urinary constituents, it has been shown that the bacteria of the intestines are very much reduced in number by the withdrawal of all food.

It was formerly supposed that the gastric juice of the stomach interposed a fairly effective barrier to the entrance of living disease germs into the intestine, but this juice has but little effect at the beginning of digestion, when the activity is slight, and toward the end, when the hydrochloric acid is nearly all combined with proteid. Some micro-organisms, e. g., the tubercle bacillus, pass uninjured through the stomach more readily than others, e. g., the vibrio of cholera.

The effect of bile on bacteria is not positively known, but it is generally supposed that it does not contain any germicidal power, as some bacteria can be cultivated on bile, though not after the precipitation and removal of the mucus. The intestinal secretion does not possess any germicidal power. All these factors are important, since all of them—bile, gastric juice and intestinal secretion—have at various times been supposed to possess antiseptic properties, and it is necessary to know what results are to be expected from increasing the quantity of any or all of them.

Strictly speaking, the antisepsis of the alimentary canal should begin with that of the mouth, but this is more conveniently considered under local antisepsis. In view of the fact that the gastric juice does not interpose an absolute barrier to the ingress of pathogenic bacteria to the intestine, the proper care of the mouth and the limitation of its flora assumes an added importance, and there is no question of the fact that proper attention to the cleanliness of the oral cavity will greatly lessen the danger from intestinal infection.

The general tone of these varied statements may appear pessimistic, so far as faith in the efficiency of intestinal antisepsis is concerned, but so far from that being the case they are intended to further demonstrate that our main reliance must, after all, be placed in guarding against the entry of disease-producing organisms into the alimentary canal and their destruction before they have passed beyond the reach of local treatment. After they have once gained admittance to the intestine the best means of limiting their development must be sought in regulating the diet and careful attention to the general condition.

If we are unable to destroy all or even any appreciable number of the bacteria of the intestine, it is consoling to know that some of them are our allies instead of our foes. It is admitted by nearly all authorities that it is impossible to influence the bacillus of typhoid fever by antiseptics. It has been shown that a milk diet hinders the development of putrefactive bacteria, and many consider that the main benefit derived from a milk diet in typhoid fever is due to its effect on bacterial development. Fortunately, the *Bacillus typhosus* does not form spores and the bacillus itself is easily killed outside of the body; heating in water even to 75 C. (167 F.) for ten minutes greatly lessens its vitality.

It is practically impossible in the space at our disposal even to summarize the results of the hundreds of investigations dealing with the question of intestinal antisepsis. Those experiments which appear more nearly free from error point to the fact that we can not secure direct antiseptic action by chemical antiseptics in the intestine without injuring the intestinal wall, or at least materially reducing those conditions which naturally limit bacterial development, more than we injure the bacteria. The net result, therefore, is usually an actual increase of some species and a diminution of others. Clinical experience seems to prove conclusively that the mild mercurous chlorid, or calomel, is beneficial in those cases of indigestion which are characterized by that train of symptoms which includes a feeling of dullness, lassitude, headache, nausea and anorexia, the condition being popularly termed "biliousness." It is possible that the antiseptic action of the calomel, by limiting the development of other species of bacteria, gives the colon bacillus a chance to multiply, the increased amount of fluid in the intestine having been found particularly to favor its development. These, in turn, may then modify digestion or serve to restrict the development of putrefactive bacteria, and, as we have seen, they favorably influence peristalsis, which in turn is one of the natural means of elimination of bacteria. The increased peristalsis caused by the calomel lessens the opportunity for absorption of the bacterial toxins which give rise to the train of symptoms mentioned; this lessened absorption may be due in part to the action of calomel on the wall of the intestine. This merely suggests the many-sidedness of an operation that appears at first glance to be a very simple one. The action of the solution of hydrogen dioxid in the mouth and throat has been discussed under local antiseptics. Owing to the rapidity with which it is decomposed by mucous membranes it can exert but little germicidal action in the stomach and absolutely none in the intestine or general circulation; indeed, it is so rapidly decomposed by the blood that it speedily causes death by embolism when introduced into the circulation. The same holds true of potassium permanganate, and it is probable that all antiseptics that depend for their action on the liberation of oxygen would be decomposed in the same way when brought in contact with the mucous membranes of the mouth and throat or the organic material necessarily present in the stomach.

ACIDUM HYDROCHLORICUM.—U. S.—Hydrochloric Acid, or muriatic acid, contains 31.9 per cent. of absolute hydrochloric acid. It is seldom used in medicine in this country, the preference being usually given to

ACIDUM HYDROCHLORICUM DILUTUM.—U. S.—Diluted Hydrochloric Acid, containing 10 per cent. of absolute hydrochloric acid. This acid undoubtedly exerts some germicidal action in the stomach when present in sufficient amount, and its action may indirectly influence the intestinal flora. It has been stated that the hydrochloric acid of the stomach becomes bound to albumin during digestion and then exerts no antiseptic influence, but we have also seen that normal digestion is one of the surest means of controlling the bacteria of the intestine, and how a deficiency of that aid may cause fermentative dyspepsia, with an enormous increase of bacteria, which may become virulent. It may be mentioned in this connection that, according to some recent experiments on man, the usual dose of hydrochloric acid, 1 c.c. (15 minims) is entirely too small to supply the deficiency existing in many cases, and as much as 200 c.c. (6 fluid ounces) of 0.4 per cent. acid, corresponding to 10 c.c. of the official dilute acid, has been given with decided benefit when the usual dose or less had given no appreciable result. It must always be given diluted with a

large amount of water. It should be remembered that mineral acids are to be taken through a tube to avoid injury to the teeth, and that the mouth should then be rinsed with water, or, better still, with a mild alkaline solution,[2] such as lime-water or a very dilute solution of sodium bicarbonate.

NAPHTHALENUM.—U. S.—Naphthalene, naphtalin and BETANAPHTHOL.—U. S.—Betanaphthol, or naphtol, have been highly recommended as intestinal antiseptics. As we have seen, they do not usually lessen the number of bacteria, though they may exert a favorable, modifying action. These substances have been used in the treatment of diarrhea with excessive putrefaction.

The average dose of naphthalene is given as 0.12 gm. (2 grains), and the average dose of betanaphthol as 0.25 gm. (4 grains). It has been suggested that naphthalene must be converted into betanaphthol before it can exert its antiseptic action, but even this point has not been satisfactorily determined.

There are a number of nostrums on the market consisting of betanaphthol combined with astringents, but in view of the complex nature of the problem with which we have here to deal it is preferable by far to employ the official substances, combining them as seems indicated in each case. To do this it is merely necessary to calculate the relative amount of each powder to be given at a dose and to dispense them either separately or in a single powder or a mixture.

Betanaphthol and bismuth subnitrate or subcarbonate may be combined somewhat as follows:

℞. Bismuthi subnitratis	℥i	4
Betanaphthol	gr. xv	1

M. Sig.—To be made into ten powders, one being given every two hours in diarrhea with foul-smelling feces.

℞. Bismuthi subnitratis	℥iiss	10
Betanaphthol	℥ss	2
Syrupi acaciæ	℥iss	50
Aquæ camphoræ to make	℥iii	100

One teaspoonful to be given, after shaking, every two hours.

The number as well as the variety of substances that have been suggested from time to time as intestinal antiseptics may perhaps justify a more extended review; we can do little more, however, than simply enumerate some of the official substances that have been used and are even now being lauded as valuable and efficient remedies in the treatment of the several gastrointestinal disorders.

The use of antiseptics in the treatment of typhoid and typhus fevers was first suggested in Germany more than thirty years ago, and the arguments that were offered at that time appeared so plausible that internal antiseptics at once sprang into vogue. Among the more popular were the following:

IODUM.—U. S.—Iodin is very seldom used as such at the present time, although is is official.

Average dose: 0.005 gm. (5 mg., 1/10 grain).

LIQUOR IODI COMPOSITUS.—U. S.—Compound solution of iodin, better known as Lugol's solution, contains about 5 per cent. of iodin and 10 per cent. of potassium iodid in distilled water. This was at one time a favorite method of administering iodin.

Average dose: 2 c.c. (3 minims).

TINCTURA IODI.—U. S.—Tincture of iodin is virtually a new preparation and combines the strength of the former official tincture with the water-soluble properties of the unofficial compound tinctures, or soluble iodin solutions. It contains 7 per cent. of iodin and 5 per cent. of potassium iodid in alcohol.

Average dose: 0.1 c.c. (1½ minims).

Iodin and the water-soluble preparations of iodin were formerly much lauded as intestinal antiseptics, and even at the present time, though, as was shown in the introductory portion of this article, the practice is now obsolete, they are frequently exploited by manufacturers of nostrums as being little short of the ideal. The form in which iodin was formerly largely used was in connection with carbolic acid or phenol, thus:

℞. Tinct. iodi	℥iiss	10
Phenol	m. lxxv	5

Sig.—0.03 to 0.10 c.c. (½ to 1½ minims) three times a day in water.

Phenol itself is now seldom employed, or even recommended, as an intestinal antiseptic, but the official pheno sulphonates, better known as sulphocarbolates, still have a number of ardent advocates.

SODII PHENOLSULPHONAS.—U. S.—Sodium Phenolsulphonate, the sodium sulphocarbolate of the previous Pharmacopeia.

Average dose: 0.25 gm. (4 grains).

ZINCI PHENOLSULPHONAS.—U. S.—Zinc Phenolsulphonate, is rather more active than the former, combining the astringent properties of the zinc with the antiseptic properties of the phenolsulphonic acid.

Average dose: 0.12 gm. (2 grains).

Both the official salts are readily soluble in water and may be given in solution. Calcium phenolsulphonate is being lauded at the present time as an intestinal antiseptic, but there is no reason to believe that it offers any advantages over the sodium salt, and it is probably quite as harmless.

Of the other official derivatives or substances coming directly under the same classification as phenol we have:

THYMOL.—U. S.—

Average dose: 0.12 gm. (2 grains),

CREOSOTUM.—U. S.—

Average dose: 0.2 c.c. (3 minims),

GUAIACOL.—U. S.—

Average dose: 0.5 c.c. (8 minims),

GUAIACOLIS CARBONAS.—U. S.—

Average dose: 1 gm. (15 grains),

ACIDUM SALICYLICUM.—U. S.—

Average dose: 0.50 gm. (7½ grains),

PHENYLIS SALICYLAS.—U. S.—Phenyl Salicylate, better known by its formerly official title, salol, is even now considered as being among the few really desirable or available internal antiseptics. It occurs as a white crystalline powder, having a faint but characteristic odor and a slight, rather peculiar taste; it is only slightly soluble in water and, therefore, does not become dissolved to any appreciable extent in the juices of the stomach. It is decomposed, however, by the alkaline liquids of the intestine into its constituents, phenol and salicylic acid, and thus becomes available as an antiseptic. It is said to be particularly useful in preventing the infection of the kidneys by the *Bacillus typhosus.*

Average dose: 0.50 gm. (7½ grains).

HEXAMETHYLENAMIN.—U. S.—Hexamethylen-tetramin has been discussed at greater length under diuretics (chapter v). This substance has also been recommended as an available intestinal antiseptic, but, as noted under diuretics, the ultimate products of its decomposition are largely, if not entirely, eliminated by the kidneys, and it no doubt finds its greatest field of usefulness in preventing possible infection of the urinary organs.

Average dose: 0.25 gm. (4 grains).

It is manifestly impossible to discuss or even to mention all the agents that have been, or are, employed as intestinal antiseptics. Many of the remedies that are recommended as intestinal antiseptics are also useful as anthelmintics. Notable among these is thymol, which has been referred to frequently of late as being a useful as well as an efficient anthelmintic and tenifuge.

Though many efforts have been made to treat tuberculosis by means of internal antiseptics, the favorable influence which has so far been observed is to be attributed to the beneficial effects produced on the tissues, and not to any direct bacteriedal action produced by the antiseptics themselves. Of the remedies that have been suggested for this purpose, creasote and guiacol continue to be used, probably with some benefit.

The whole problem, however, appears to concern curative effect and treatment rather than antisepsis.

Few articles in our materia medica possess any action so specific as that shown by cinchona or its chief alkaloid, quinin, in the treatment of certain forms of malarial fever. Cinchona bark itself owes its introduction into Europe to the fact that it was found to be efficient in the treatment of fevers

2. The following has been used to a considerable extent in the treatment of gastric fermentative dyspepsia, particularly when accompanied by nervous disturbances:

℞. Sodii bromidi	gr. v	3
Resorcinolis	gr. ii	1
Aquæ anisi q. s. ad	℥ii	10

This dose to be taken after meals in half a glass of water.

of a malarial type. For many years after its introduction into Spain the Jesuits had the bark sent to them by their brethren in Peru and carefully kept the source of its origin a secret, and the substance, therefore, became widely known as Jesuits' bark. Being virtually introduced as a nostrum, or secret remedy, it need not surprise us when we find that it has frequently taken a most important part as one of the component parts of a number of nostrums, even down to our own times.

Quinin, the most valuable of the alkaloids of cinchona, was discovered by Pelletier and Caventou in 1820, and is to-day one of the few substances in medicine that has met with a constantly increasing popularity. Quinin is official under no less than six different titles, in addition to the several scale salts and preparations that are not of direct interest in connection with its peculiar uses in malarial fever.

QUININA.—U. S.—Quinin.

QUININÆ BISULPHAS.—U. S.—Quinin bisulphate.

QUININÆ HYDROBROMIDUM.—U. S.—Quinin hydrobromid.

QUININÆ HYDROCHLORIDUM.—U. S.—Quinin hydrochlorid.

QUININÆ SALICYLAS.—U. S.—Quinin salicylate.

QUININÆ SULPHAS.—U. S.—Quinin sulphate.

Average dose of each of these preparations: 0.25 gm. (4 grains).

The physical properties of the several salts of quinin are so well known that they do not require a description at this time. The reasons for the popularity and use of some of these salts are not always apparent. In America the sulphate is used almost exclusively, while on the continent of Europe the hydrochlorid appears to be given the preference in all cases. That each of the several official preparations of quinin has some particular points of merit is suggested by the following table, showing the relative percentage of anhydrous alkaloid quinin in each and also the relative solubility in water and in alcohol:

	Per cent. of anhydrous quinin.	Solubility in water.	Solubility in alcohol.
Quinin	85.5	1750.	0.6
Quinin bisulphate	59.5	8.5	18.
Quinin hydrobromid	76.6	40.	0.7
Quinin hydrochlorid	81.5	18.	0.6
Quinin salicylate	69.9	77.	11.
Quinin sulphate	74.3	720.	86.

It will be noted that the very commonly used sulphate, next to the alkaloid itself, is the least soluble in the most common of all solvents, water; this, while a decided advantage so far as masking the taste of the salt is concerned, is a marked disadvantage in attempting to make a solution of the salt. Where quinin sulphate is to be given in solution it must be given in an acid mixture or in solutions that are so dilute that the quantity to be taken would be nauseating.[3]

The more satisfactory method of administering quinin in the comparatively large quantities that are usually given is in cachets, gelatin capsules or pills.

The use of quinin as a destroyer of the protozoön which causes malarial fever is among the best established facts of therapeutics. It is mentioned here largely to avoid the criticism of incompleteness rather than to offer any suggestions of novelty to the general practitioner.

If fairly large doses of quinin be given four hours before the time at which the chill of malarial fever is expected to occur, and the dose repeated in two hours, the maximum effect of the quinin on the organism is obtained and the chill is usually prevented. The quinin existing in the blood at the time that sporulation occurs destroys the newly liberated organisms and the blood is rendered aseptic so far as that particular organism is concerned. This process has to be repeated at intervals, sometimes for three or four weeks.

The use of salicylates in articular rheumatism is almost as well established as is that of quinin in malarial fever. The precise mode of action is not known, but it is surmised that its action is somewhat analogous to that of quinin. We may be permitted to add a list of the official preparations that would properly come under this heading, just to show the extensiveness as well as the variety of the official preparations. Surely such a variety as we find here should enable us to choose the appropriate remedy of this type without the necessity of having recourse to any of the nostrums.

ACIDUM SALICYLICUM.—U. S.—
Average dose: 0.5 gm. (7½ grains).

SODII SALICYLAS.—U. S.—
Average dose: 1 gm. (15 grains).

AMMONII SALICYLAS.—U. S.—
Average dose: 0.25 gm. (4 grains).

LITHII SALICYLAS.—U. S.—
Average dose: 1 gm. (15 grains).

STRONTII SALICYLAS.—U. S.—
Average dose: 1 gm. (15 grains).

PHENYLIS SALICYLAS.—U. S.—Salol (U. S. P., 1890).
Average dose: 0.5 gm. (7½ grains).

METHYLIS SALICYLAS.—U. S.—
Average dose: 1 c.c. (15 minims).

OLEUM BETULÆ—U. S.—
Average dose: 1 c.c. (15 minims).

OLEUM GAULTHERIÆ.—U. S.—
Average dose: 1 c.c. (15 minims).

SALICINUM.—U. S.—
Average dose: 1 gm. (15 grains).

The use of mercurials in syphilis requires a much more extensive treatment of the subject than we can accord it in this connection, and the preparations that are usually employed are too well known to require further mention at this time.

3. It is truly surprising that the sulphate of quinin continues to be used to the almost complete exclusion of the alkaloid and the other salts. When a tasteless mixture is desired the alkaloid is preferable because it is less soluble than any of the official salts; if it is necessary to administer the drug in solution, ten grains of the hydrochlorid may be given in a teaspoonful of a mixture containing 50 per cent. of alcohol, while three grains of the hydrochlorid, or seven of the bisulphate may be given in a teaspoonful of a watery mixture. The following is a type of the usual acid mixture:

℞.	Quinin sulphatis	grs. lxxv	5
	Acidi hydrochlorici dil.	m. lxxv	5
	Elix. aromat. q. s.	ʒiii	100

When the salt, or better, the alkaloid, is to be given in a mixture, and the taste is to be masked, acids should never be added. Instead of the acid, a sweet substance, like glycyrrhizin, should be used to mask the bitter taste of the quinin. A satisfactory mixture is obtained as follows:

℞.	Quininæ vel quininæ sulphatis	grs. lxxv	5
	Fld. ext. glycyrrhizæ	ʒiv	15
	Syrup et elix aromat. ää q. s.	ʒiii	100

Clinical Notes

UNRECOGNIZED EPILEPSY.

WILLIAM P. SPRATLING, M.D.
Medical Superintendent, The Craig Colony for Epileptics.
SONYEA, N. Y.

The frequency with which certain forms of epilepsy go unrecognized for years constitutes a disquieting element in the successful treatment of a disease difficult to cure under the earliest diagnosis.

1. A leading reason why certain types of minor epilepsy are not infrequently overlooked, or, being more or less casually observed, are ignored, is that we, too, often make the mistake of regarding epilepsy as "a disease characterized by tonic or clonic convulsions and followed by loss of consciousness." This faulty definition is rapidly becoming obsolete. I believe a better definition is this:

Epilepsy is a disease or disorder affecting the brain, characterized by recurrent paroxysms, which are abrupt in appearance, variable in duration, but generally short, and in which there is impairment or loss of consciousness, together with impairment or loss of motor co-ordination *with or without convulsions*.[1]

The fact that this definition is comprehensive enough to include all varieties and subvarieties of epilepsy tends to rob it of scientific accuracy when applied to any particular form of the disease. But this is unavoidable, for it is more difficult to formulate a true definition of epilepsy than it is to define insanity.

1. Spratling: "Epilepsy and Its Treatment."

2. A second leading reason why epilepsy is not earlier recognized in many cases is because the gravity of its incipient manifestations is not appreciated and because "weaknesses," "faints," "worm fits," "teething fits," "stomach fits," "lapses" and the like are often erroneously held to be innocent in character when they should always be looked on in the most serious light. During the past ten years more than 200 cases of well-defined epilepsy have come under my observation in which the disease had its origin in the innocent convulsive manifestations of early life, these manifestations being taken at their apparent rather than at their real value, and there being at the same time a general failure to respect the convulsive tendency of the individual, genuine epilepsy was sooner or later the inevitable result.

The keynote to the whole situation is in mistaking apparently innocent phenomena for phenomena of the gravest import. Muscular contractions and distortions are nothing in the prognosis of epilepsy compared to the disastrous form of the disease that may be so silent in its appearance, course and termination as wholly to escape unskilled observation. We are just beginning to learn a great truth in the treatment of epilepsy similar to the one it took us hundreds of years to learn about tuberculosis; and that is that freedom from the disease is often but little more than a matter of right living.

If a child who has "weaknesses," "faints," "worm fits," "teething fits," "stomach fits" or other lesser convulsive manifestations (no matter by what name they may be called), even though they apparently disappear for good with the passing of infancy or of childhood, the convulsive tendency of that individual must be respected so long as the individual lives, and particularly must this tendency be respected at certain critical epochs, such as the first and second dentition periods, during attacks of the specific fevers and at puberty—the latter the most of all, for from the twelfth to the sixteenth year, inclusive, constitutes the greatest epileptic age.

I make a plea for the early recognition, proper and prolonged treatment of the convulsive manifestations of infancy and early life that so often later pass into genuine epilepsy.

A NEW ANASTOMOTIC CLAMP.

G. F. ROOSEVELT, M.D.
DENVER, COLO.

The instrument presented here is designed for use in suture anastomotic work. It was originally intended for use in the operation of gastroenterostomy, but it will probably prove equally as efficient, if not more so, in enteroenterostomy.

When two clamps are used the difficulty encountered by the assistant in maintaining the proper relative position of the two portions to be united, sometimes becomes a source of annoyance to the surgeon, occasionally even leading to actual damage to the tissues. In every case it requires the entire use of both hands of the assistant, preventing his being of service in other ways.

The clamp which I have designed is expected, in the majority of cases of this class, to replace the two clamps which have hitherto been required, and the slight loss of time, if there should be any, in adjusting the new instrument in position, will be more than regained later in the operation, because the assistant will be able to save time by doing his share of the work.

As shown in Figure 1, the clamp consists of three parts—a central blade which is reversible and two blades which are interchangeable in an instrument with straight jaws, but which become right and left in a curved-jaw clamp.

The lock is a double Collins, permitting of easy separation and removal of the blades.

In a case of posterior gastrojejunostomy, for example, the stomach is grasped as usual at the desired angle, between the blades "a" and "b," Figure 2, which are then locked at the desired tension, thus virtually forming a single blade carrying the fold of stomach.

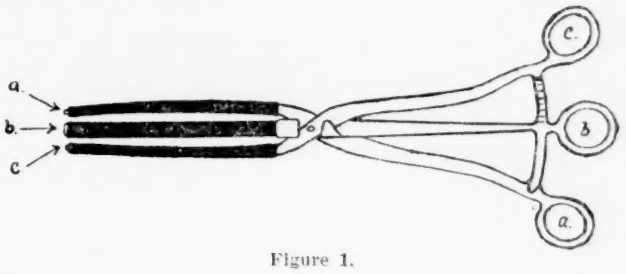

Figure 1.

The handle is now carried around to the new angle, parallel to the line "x-y" in Figure 2, or as near to it as the tissues will permit. The intestine is picked up by the fingers, or by an intestinal clamp applied in the desired line of incision, and raised up to its position against the blade "b." Blade "c" is placed into the lock which is uppermost and brought round until it clamps against "b" with the result shown in Figure 3.

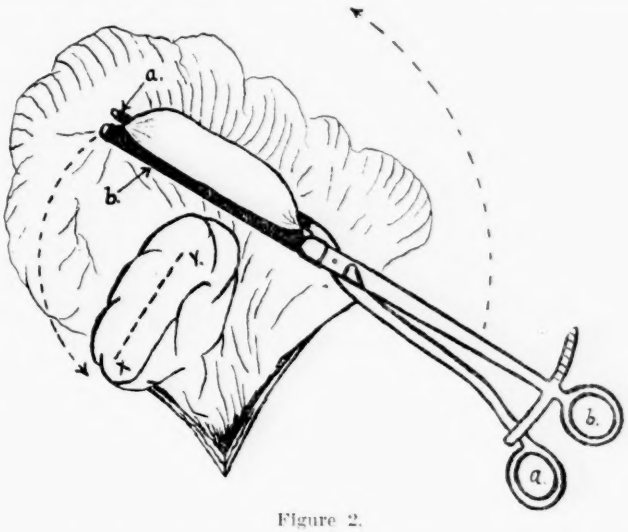

Figure 2.

A strip of gauze sponge is placed along the middle blade and the operation is completed as if two clamps had been used, but much more easily.

After the anastomosis has been made blades "c" and "a" may be removed, leaving "b" in place until the field has been examined for bleeding, etc., when it may be withdrawn.

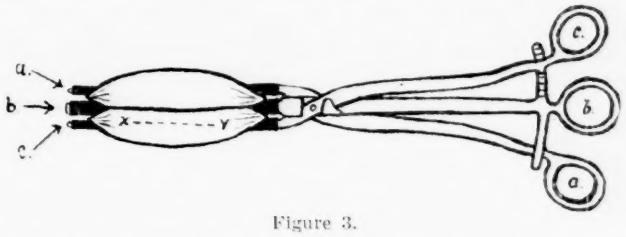

Figure 3.

In trying to hold two clamps in position there is a varying tension on the stomach which is productive of much annoyance to the anesthetist, but this style of clamp does not require that effort and supports itself on the edges of the incision with a constant tension on the stomach. It does not have to be touched from the time it is applied until the anastomosis is complete.

1423 Stout Street.

A PIECE OF STEEL RETAINED IN THE EYE FOR SEVEN YEARS.

LOUIS W. FLANDERS, M.D.
DOVER, N. H.

Patient.—Mr. J. G., aged 42, was sent to me Dec. 21, 1905, for treatment of his left eye. He gave the following history:

History.—Seven years ago, while striking with a stone chisel, a bit of steel flew from the tool and struck him with great force in the left eye. He went to an infirmary where "they found the hole, but could not find the bit of steel." After six weeks of inflammation the eye quieted down, and in six months after the injury the sight was reduced to perception of light only. From that time he had occasional attacks of irritation with blurring of the sound eye, but nothing to amount to anything until the night before he appeared for treatment. He spent that night, as he graphically expressed it, "on my hands and knees in bed, shrieking with pain."

Examination.—I found a marked irido-cyclitis and advised immediate enucleation. The patient demurred, and I gave him until the following morning to decide, and in the meantime the treatment consisted of instillations of atropin, an ice-bag to the eye, and morphin enough hypodermatically to make the pain bearable. He passed a restless night and consented to enucleation the next morning.

Examination of Enucleated Eye.—Section of the enucleated eyeball disclosed the following conditions: Scar of the cornea in the superior quadrant; a round hole in the iris just behind the scar; less cataractous, vitreous completely disorganized. In the inferior quadrant of the ciliary body there was a black object about 3 mm. long by 2 mm. wide. This turned out to be the bit of steel which had oxidized so that the outer shell came away like charcoal, leaving a solid nucleus about one-third of the original size.

Remarks.—It seems remarkable that a foreign body could have lain in the ciliary body, of all places, for seven years before giving rise to marked symptoms.

A CASE OF TETANUS TREATED BY INTRASPINAL AND INTRANEURAL INJECTIONS OF ANTITOXIN.

E. DUNSTER KREMERS, M.D.
HOLLAND, MICH.

The following case of tetanus, cured by the antitoxin treatment, is reported as an addition to the list of those already published as treated by this method:

Patient.—J. V. Z., aged 32, male, American, married.

History.—On Nov. 23, 1905, whil working near the barn, the patient stepped on a rusty nail, which penetrated the left foot for a depth of about three-quarters of an inch. The wound bled freely. It was dressed with an external application of one of the common clay and glycerin poultices and healed without any trouble. On December 1 the man worked out in the field in cold weather and became thoroughly chilled. He soon began to complain of stiffness in the chest, which increased and spread to the back, legs and jaw. This was on the ninth and tenth days after the injury, and the stiffness was thought to be due to rheumatism. On December 3 and 4 he noticed that he had great difficulty in eating and that this trouble was growing worse. On December 5 he passed what he describes as a terrible night. He suffered repeated severe convulsions and was drawn back in opisthotonos.

Treatment.—When seen by Dr. E. De Spelder at 5 a. m. he was almost exhausted and was given morphin, gr. 1/4, hypodermically. He was seen again at 11 a. m. and his condition was about the same. At this time Dr. H. Kremers saw him and gave morphin, gr. 1/2, hypodermically, and antitoxin, 2 dr., subcutaneously. The man's temperature was 100 and pulse 100. I saw him first at 5 p. m. on that day. He was sitting up in bed in general rigidity, jaw almost locked and temperature 101.5. Under chloroform anesthesia I introduced a needle into the spinal canal under the third lumbar vertebra and injected two drams of antitoxin. One dram was also injected into the thigh over the sciatic nerve. He was given by rectum chloral gr. xxxv, potassium bromid gr. xx. After this he slept for three or four hours and was kept quiet all night with morphin and large doses of chloral and bromid, which he swallowed through a soft rubber tube.

Course of Disease.—December 7 the jaw was a little stiffer. At 3:30 p. m., under chloroform anesthesia, I exposed the left sciatic nerve high up under the gluteal fold. The nerve was easily found and injected with 30 minims of antitoxin. A silk ligature was passed under the nerve to facilitate finding it and the wound partially closed. The wound in the foot, which had healed, was incised, disinfected with carbolic acid and iodin, equal parts, and packed with iodoform gauze. At 8 p. m., after moving the patient in bed, he went into a severe general convulsion with marked opisthotonos, cyanosis, cessation of respiration and fluttering heart. He was at once given chloroform and kept anesthetized until a hypodermic of morphin, gr. 1/2, had time to take effect, and then he was kept stupid the entire night.

On December 8 the patient had many small spasms, but no more severe ones. Placing a thermometer in the axilla or the drinking tube to his lips would bring on a spasm. During the day his temperature went up to 101.5 in the axilla, but he was kept quiet under drugging. At 5 p. m. the sciatic nerve was re-exposed and injected with 30 minims of antitoxin. A large amount was also injected into the foot. During the night the pulse became unsteady, running up to 135, and at the same time respirations went down to twelve to the minute.

On December 9 the patient was chloroformed once more and the nerve re-exposed. It was intended to inject the nerve, but when brought out of the wound it appeared very red and there was a piece of the sheath a half inch in diameter which had been torn away. On this account, fearing to injure the nerve, and since the patient was not growing worse, the antitoxin was injected into the tissues.

From this time on the condition steadily improved, although the spasms and trismus continued for several days, gradually growing less frequent and less severe. He was kept as still as possible in a darkened room and given morphin, chloral and bromids to keep him quiet. The jaw could be separated only a quarter of an inch, but the patient could be fed with a soft rubber tube. He drank large quantities of milk and water. The temperature slowly dropped with the trismus and rigidity, and on December 25 he was out of the house. The wound in the thigh healed rapidly and there was absolutely no disability in the leg except that the rigidity was slower to disappear from that side.

This case may be regarded as a rather subacute one, as the symptoms were slow in coming on and the jaw was not completely locked. It is hard to say, therefore, just how much influence the antitoxin had in the cure, but the condition was growing worse at the time the injections were first given and it is very probable would have gone on to death. The cases reported by Rogers[1] go far to show that antitoxin will cure tetanus if used in the manner he describes, even if used without any other treatment, and this case may be added to the list as recovering under the same treatment. As pointed out by Rogers, the chloroform is an important part of the treatment, as it reduces, for a time, the patient's excitability and relieves him of a great deal of his suffering. Chloral, also, in this case was found to be more effective in reducing the number of spasms than morphin. This case also shows that there is no great danger in the treatment itself, because, even though the nerve appeared deeply injected and wounded, there was neither pain, numbness nor paralysis in the affected leg. The treatment was all done in the patient's farmhouse, and this shows that it is an easy matter to carry out.

1. THE JOURNAL, A. M. A., July 1, 1905.

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SATURDAY, MARCH 10, 1906.

THE FREE DISPENSARY EVIL.

Some time since we mentioned the lack of control of free dispensaries in almost all the states. We referred to the fact that New York had made an attempt to regulate dispensaries, but that the law passed in that state had been aimed primarily at the abuse of free clinics by well-to-do patients and that it only incidentally affected the more important question of the character of medical care furnished in free clinics.

This law has now had six years' trial, and at a recent meeting of the New York County Medical Society, held in New York City, the working of the law was reviewed by physicians and by members of the State Board of Charities and of the City Charity Organization Society. The report of the conference is interesting and enlightening from several points of view. In the first place, it seems to be generally conceded that the law has not attained the object for which it was framed, namely, "to remove the dispensary evil, which was commonly held to be the unrestricted multiplication of dispensaries and the indiscriminate bestowal of medical charity alike on the well-to-do, the self-supporting and the indigent." That the law has failed to remedy this the lay speakers, officials of charitable societies and inspectors for the state board make clear, although there is an attempt on the part of some dispensary physicians to claim that the evil has been lessened. On the other hand, it appears to be undeniable that, to a very great extent, the secondary object of the law has been attained. The licensing, inspection and control of dispensaries by the state board, according to the testimony of laymen and physicians alike, seem to have resulted in great improvement in the conduct of these institutions. It may be well to review briefly the provisions of the law in these respects.

The New York law requires all dispensaries to be licensed by the State Board of Charities. No dispensary may be opened unless it can be shown that there is need for such an institution in that locality and that when it is established it will be properly maintained. Suitable buildings must be provided, drug stores or tenements may not be used, seats for all applicants must be provided, cleanliness must be maintained, and a matron or female nurse must be present at all gynecologic examinations or treatments. The apothecary must be a licensed pharmacist or a medical graduate. Regularity of service is insisted on and also strict rules regarding the isolation of contagious diseases. The board is empowered to revoke the license for cause, and has done so when necessary.

These provisions are certainly not unreasonable and it should be possible to enforce them. That New York has succeeded in so doing is evident by the reports read at this meeting.

In 1899, previous to the passage of the bill, dispensaries were in operation in tenement houses, drug stores and dilapidated old buildings and shanties. One, which reported treating 48,000 patients annually, was conducted in a wooden structure 12x20 feet and 8 feet high. In another water for physicians and patients was brought in a bucket from the next building. The last report of the board showed that 109 out of 119 dispensaries inspected were found in location and equipment to meet the requirements of the law. There has been an actual diminution in the number of dispensaries in spite of the steady increase in New York's population. In 1899 there were 136 dispensaries, in 1904 only 119, although the population of New York City has increased 150,000 annually during that time. In the matter of the proper conduct of gynecologic clinics, the keeping of records, and the regularity of attending physicians, the board reports decided improvement.

Undoubtedly, then, the law has been of marked benefit in raising the character of medical care in free dispensaries, and from this point of view it may be held up as a model to other states. But why should it have failed in remedying the evil for which it was specially framed? The answer is interesting, for it seems that while the medical profession was responsible for the framing of the law and is, of course, the chief sufferer from the abuses which it sought to abolish, it is the medical profession which defeats and nullifies it. Practically no genuine effort is made to weed out from a dispensary clinic the patients who probably are able to pay a physician's fee. Physicians in charge of dispensary clinics take pride in having a large number of patients on their days. Moreover, the well-dressed, prosperous-looking patient may prove to be the most interesting case of all. Hospital superintendents are quoted as saying that if they should restrict the dispensary cases to those who are clearly too poor to pay a physician the clinics would be so reduced that it would be impossible to retain the best specialists on their staffs. Dispensary registrars report that any attempt to use strictness in the admission of applicants meets with disapproval from the physicians. There is another motive sometimes encountered in privately conducted dispensaries, namely, the pecuniary gain represented by even a very small fee. Dr. G. C. Sturges mentioned instances of dispensaries charging a ten-cent fee which made from $1,200 to $3,000 a year.

Undoubtedly the exclusion of unworthy applicants from free clinics is a difficult if not an impossible task. What is to be the standard of "worthiness?" Any at-

tempt to decide on a patient's standing by his clothing, general appearance, intelligence, etc., ignores the fact that the experienced beggar always knows how to dress and act for the part. Dr. E. Le Fevre reported investigating personally thirty-five intelligent, well-appearing applicants for free care who all proved worthy, being people who had already paid their physicians all they could afford and yet needed long courses of treatment. Many a general practitioner is obliged to send to a dispensary patients of his own who need treatment by specialists for which they could not pay.

Then there is the question of dispensaries maintained for teaching purposes in connection with medical schools. Those connected with such schools are seldom anxious to limit the number of patients attending. Moreover, it would seem as if patients visiting such dispensaries and allowing themselves to be used for purposes of demonstration should hardly be regarded as free cases, for in a sense they pay for their treatment.

When we protest against the "abuse of the free dispensary" it is well to remember that we are ourselves chiefly to blame for this abuse, and it would be foolish for us to seek for a remedy through legislation until we are prepared to obey the law after it is passed.

PASSIVE CONGESTION IN THE TREATMENT OF INFECTIONS.

It is probable that in the treatment of many diseases the physician will never be more than the assistant of Nature. A two-fold tendency is to be seen in the therapeutics of recent years, on the one hand an effort to replace some of the older substances by less toxic products of chemical synthesis, and on the other a decided effort to utilize physical therapeutics. Both tendencies are in principle good, but both may be abused. Physical methods especially tend to act by encouraging or hastening natural processes of cure.

Among the advocates of certain forms of physical therapeutics must be mentioned the German surgeon, Bier, who for years has been extolling the value of passive congestion in the treatment of chronic joint affections. A little over a year ago this observer published an article in which he recommended the use of passive congestion in acute infections also. Such conditions as panaritium, furuncles, suppurative tenosynovitis, and acute osteomyelitis were suggested as being amenable to this form of treatment. The methods to be employed were essentially those previously described in the treatment of chronic affections. When the infection was localized in an extremity an elastic bandage could be used, if very restricted treatment was desired; or if the disease was on the trunk or head, a suction apparatus of glass with a rubber bulb exhaust was employed. As in previous articles, Bier laid stress on the necessity of a red hyperemia in the treatment of these cases. A complete stoppage of the venous circulation, with the resulting blue hyperemia, is regarded by him as productive of more harm than good.

Numerous articles have appeared in the past year[1] which support Bier's contention that in passive hyperemia we have a valuable means of combating acute infections. Recently Colley, Herhold and Mindes[2] have published commendatory articles. The reports show that certain forms of acute infection are more amenable to this treatment than others. In panaritium the application of the rubber bandage seems to be followed in most instances by rapid disappearance of the pain, a smaller incision is necessary (passive hyperemia does not take the place of incision), and the time of healing is materially reduced. Furuncles also seem to be especially suited to this form of treatment; when incision is necessary it need be very small, and if this form of treatment be instituted early enough the process may often be cut short. In phlegmons, particularly those communicating with tendon sheaths, smaller incisions are needed, packing is dispensed with, and in most cases the resulting limitation of motion seems much less than under ordinary surgical methods. In cases of osteomyelitis recovery frequently occurs without operation, and those patients operated on have a shortened period of illness. According to Colley, the method of treatment has a great future in the treatment of certain chronic forms of skin disease, a fact which he seems to have discovered accidentally in treating an individual who suffered from an infection complicating a chronic eczema.

The method of action of this form of treatment is of interest. It certainly does more than merely dam back the venous blood. According to Bier, the lymph stream is also interfered with during the period when the hyperemia is maintained. When the constricting band is removed, however, there is a great increase in the circulation of both blood and lymph. According to Noetzel, the fluid which is present in an artificially produced edema, such as Bier's method induces, is very strongly bactericidal. It is probable, too, that the simple dilution of toxins by the edema fluid plays a part in the process, and that the presence of leucocytes in the fluid is also a factor. The method is then simply a way of assisting Nature; it causes an increase in the flow of lymph, a condition which, as Wright has elsewhere shown, is of great importance in infections, inasmuch as it allows bacterial toxins to get into the circulation and to stimulate the formation of antitoxins. The inflammatory edema which Nature produces doubtless has much the same effect as the artificial edema produced by Bier's method, but once it has taken place there is practically no circulation in the fluid such as is produced by the intermittent production of passive congestion. Hitherto this method of treatment has not been adopted to any extent by American physicians, though the published accounts of its value are certainly encouraging.

1. See abstracts in THE JOURNAL A. M. A., April 1, 1905, p. 1075, and also pages 471, 473, 550, 621, 625 and 691 of the current volume.

2. Münch. med. Wochft., 1906, vol. liii, p. 257.

ANEMIA IN PORTO RICO.

The peculiar and pitiful anemia in Porto Rico is caused by hook worms or uncinaria. "Porto Rican anemia" is simply another term for uncinariasis or ankylostomiasis. Physicians in northern parts see so little of this disease in their practice that it is at first a little difficult for them to grasp the extent, the significance, and the misery of this disease in Porto Rico and other tropical countries.

In March, 1904, a commission was appointed for the study and treatment of anemia in Porto Rico, and reference has been made in these columns to the results of its work, which was deemed of such importance that the Legislative Assembly in 1905 appropriated $15,000 to continue the commission (Igaravidez, King, Bashford). The preliminary report of this commission, covering the period from June 1 to November 30, 1905, is at hand. A brief glance at some of the phases of its work will show the benefit practical methods based on scientific knowledge may bring to human sufferers in countries like Porto Rico.

The commission organized a central station and several substations for the microscopic diagnosis and the treatment of patients with uncinariasis and for the instruction of the people as to the nature of the disease and the means of its prevention. In all 18,865 patients were treated, 84+ per cent. were cured or practically cured (several hundred cases being still under treatment); only 33+ per cent. of the total number died.

Thymol seems to be the favorite drug and the commission expresses the belief that five consecutive doses of thymol or beta-naphthol are "sufficient, usually, to bring the patient, if not to a technical cure, at least to the assurance of a practical cure." The specific treatment of "Porto Rican anemia" is thus definitely established. "The long list of 'sure-cure' patent iron pills, powders, and blood and nerve restorers, so dearly paid for by the unfortunate and credulous 'jébaro,' paid for, it should be remembered, from the earnings of a class said to be starving in poverty, is a list too long and too disgusting to contemplate without anger and a sense of shame." The use of iron as a *sine qua non* in the treatment of postuncinarial anemia is being abandoned in Porto Rico, and the vendors of patent ferruginous tonics should cease baseless exploitation of their wares.

According to the observations of the commission, 99 per cent. of all who harbor uncinaria receive the infection through the skin, usually of the bare feet, from contact with soil or water loaded with larvæ. "Ground itch" or "Mazamorria" is the first sign of infection and, if repeated or severe, uncinariasis may follow, and the patient in his turn becomes a menace to public health. The coffee plantations offer most favorable opportunities for infection of the soil by feces. Based on considerations, most briefly indicated, of this nature, the commission holds that success of the campaign against uncinariasis in Porto Rico involves the treatment of all infected persons in order to "render innocuous the feces of thousands who will continue to inoculate the soil in spite of prayers, lectures, advice, coaxing and even the prohibition imposed by the law." The wearing of shoes and the provision of latrines or even pits, adequately supervised, for defecation are additional measures that must be pushed to the utmost. We see that uncinariasis, now that we know the nature and the manner of spread of the disease, has become a preventable (one is tempted to say, easily preventable) disease. The magnificent work of the Porto Rico commission must be continued and extended.

BUSINESS METHODS AND PROFESSIONAL MORALS.

Recent investigations into business methods have unearthed a degree of corruption which is almost incredible to those unacquainted with the conditions and which have been destructive of confidence in the integrity of the modern commercial world. With no intention of self-righteous boasting and no desire of condoning unjustifiable practices, we are proud to believe that the medical profession is freer from graft than any other equal number of men in the ranks of a profession or business. And this is as it should be. The relation of a patient to his physician is a most intimate one, and one in which implicit confidence is the very foundation of the relationship. The patient puts his life and his health unhesitatingly in his physician's hands; he feels that even if his physician lacks skill or needs assistance in an emergency he at least is honest and will do what seems best for the patient's interests. But it would be remarkable, considering the almost universal prevalence of "graft," if some doctor did not abuse this relationship. This he does in the so-called division of fees, a species of graft that we are compelled to acknowledge does exist, although undoubtedly it is extremely rare. While there is a probability of any of this kind of business going on it demands that we give thought to the matter. It is something we can not afford to treat in an ostrich fashion.

In his retiring address as president of the Syracuse Academy of Medicine Dr. T. H. Halsted brought out in a most forceful way some important truths with regard to this evil. He pointed out the importance of the position of trust and confidence occupied by the members of our profession to the public, and referred in a forceful manner to the abuse that some had made of the privilege in the species of graft referred to above. He said that the dividing of fees, without the patient's knowledge, is a most dishonorable transaction. If the fee division be done with the patient's knowledge then there is no dishonesty in the transaction. The patient has relied on the advice of his physician in selecting the most competent consultant. He assumes that his physician knows the best man, and without question accepts his advice. Did he know that his physician was considering, in addition to the con-

sultant's medical qualification, the question as to how much of the fee he was to receive the patient would probably feel that his doctor's advice might not be wholly disinterested.

The family physician should stand between the surgeon and his patient, looking after the latter's interests and using his judgment as to the necessity for an operation. He can not permit his judgment to be influenced by financial consideration, and if he does he betrays the patient who has placed his confidence in him. A man who permits himself to accept from such a surgeon, consultant or specialist a division of the fee or a commission without his patient's knowledge inflicts an injury on his character which sooner or later will tell on his reputation, because these things which cause a moral deterioration have a way of showing themselves unconsciously. Now, what of the consultant who divides the fee or pays the commission? To begin with, he is taking an unfair advantage of his colleagues, competing with them, not on a basis of professional skill, character and attainments, but he is secretly actually paying money to physicians to have their cases referred to him and diverted from his more honorable colleagues who expect recognition on professional merits alone. This may be a shrewd method of getting lucrative practice, but it has its disadvantages. Such a man thinks too much of his fee, his judgment gets warped, and before he knows it he finds himself in the habit of wondering how much money can be gathered from the patient, rather than what is best to do for him. The physician who has called him in consultation must frequently be in doubt as to how much reliance can be placed—with safety to the patient—on his advice. Each—the payee and the payor of the commission—loses confidence in the other. The patient would undoubtedly question the advice did he know of the method pursued—and some patient will find out—some time.

He who adopts this "graft" makes of his profession a dishonorable business, with the inevitable result of developing his money-making instincts at the sacrifice of professional skill, acquirements and judgment, and it can be but a matter of time until his reputation—one of the best assets—is gone, and he finds that while he has been getting a practice, his slower, more honest competitor has been building on a surer foundation and has been establishing a reputation. The one has been deteriorating in his moral fiber from the beginning, the other has been gaining strength. So that, in the long run, it will be found that in our profession, as everywhere else, the old aphorism that "honesty is the best policy" still holds true. All surgeons, or practitioners of specialties, are only too well aware of the truth of these statements.

No doubt this system of graft had its origin in the existence of an unfair discrepancy between the size of the consultant's fee and the fee of the faithful physician and general practitioner. With all due allowance for the value of superior ability and experience and the high cost of long years of special training, some consultants charge fees which, compared with the fee of the general practitioner, must seem excessively large. But this has nothing whatever to do with the matter, or, if it does, *let the division be made, but with the patient's knowledge.* It is certain that many physicians are not receiving the income which they should considering the irregular hours and nerve wearing work in which they are engaged. Yet the best way to increase the income is not through practices of the kind mentioned, but by a united effort to raise prices so that a living income may be earned. The advantages of a united medical profession must be evident to all in this as in other connections and we hope that by such united effort a better financial condition may be brought about, and this without the sacrifice of honor in any respect.

CANCER RESEARCH.

Investigations into the origin of cancer and into other mysteries connected with this obscure disease are being earnestly prosecuted in all parts of the civilized globe. Edinburgh has contained for some time investigators eminent as would-be solvers of the cancer problem, among these may be mentioned Russell and Stiles.

The latest contributor to the subject is Dr. John Beard,[1] lecturer in comparative embryology in the University of Edinburgh. From his study of fish he concludes that aberrant germ cells exist in all parts of the body, each of which, under unknown conditions, may give rise to a cancer, which is thus essentially an asexual structure. Further, Dr. Beard asserts that even in the development of man himself there is a brief but not insignificant stage, during which an asexual structure is produced. In short, that "alternation of generations" (alternately sexual and asexual) which is so familiar in many of the lower animals and plants, has not been entirely suppressed. Dr. Beard is of the opinion that he will discover the cause leading to the arrest of development of the asexual structure. If, as he surmises, a malignant tumor be but another asexual structure, it might be controllable by whatever cause controls the normally produced asexual structure. Dr. Beard thinks that he has, to a certain extent, been able to do this. Rather more than a year ago he demonstrated that in the case of the fish the arrest of development of the asexual stage and the disappearance of the asexual structure coincide with the commencement of the activities of the pancreas. If the secretion of the pancreas be absent the asexual structures of the fish do not degenerate. The constituent in this secretion with which we are most familiar is trypsin. Dr. Beard believes that in mice with experimental cancer he has been able to arrest the disease by means of trypsin. Relatively large doses were given by inoculation, without visible injury to the body cells, while the cancer cells simply crumbled away. Trypsin has already been administered in very modest doses

1. British Med. Jour., Jan. 20, 1906; abstract in THE JOURNAL A. M. A., Feb. 17, 1906, p. 544.

to human patients, the effect being an apparent prevention of the recurrence of cancerous growths after surgical operation. Dr. Beard, arguing from his studies in embryology alone, holds the view that trypsin will be found to be perfectly harmless so far as the living body cell is concerned. The argument in favor of the value of trypsin in cases of malignant tumor is that the living body is a sexual product, and that whereas it has a destructive action on asexual products, it has no power whatever over the cell products of sexual generation. Dr. Beard terms trypsin the architect of the soma.

So many assertions in recent years have been made of cures for cancer, many, if not most, of which have been scandalous and unblushing frauds that men of science are now very chary of accepting any such statements. Naturally, until the cause of malignant growths is discovered, it would be idle to expect a rational and radical cure. There can be no doubt, however, that more or less satisfactory progress is being made in regard to cancer research, and at any rate the deductions of a man of the scientific rank of Dr. Beard are entitled to respectful consideration. It is to be hoped that still more encouraging reports will be forthcoming from the Edinburgh laboratories in the near future respecting Dr. Beard's investigations.

"THE COMING CONQUEST OF CANCER."

The interesting embryologic studies of Beard and his deductions therefrom, anent cancer, referred to above, have been utilized as the basis for more or less sensational and overdrawn statements in the lay press. An article in *Harper's Weekly*,[1] by C. W. Saleeby, M.D., concludes with the following announcement: "It seems more than probable that in trypsin has been discovered, for the cancer cell, that specific poison which must exist for every cell. Only the philosophic few could have guessed for a moment that Dr. Beard's long and famous researches would ever enable him—as they would, indeed, appear to have enabled him—to place in the hands of the physicians a veritable cure for cancer."

Now, do the facts at hand really justify this startling conclusion? Beard holds that in fishes aberrant germ cells exist in all parts of the body, and reviews in a somewhat more definite and modified form Cohnheim's hypothesis of the origin of tumors, more particularly cancer, in persistent embryonal cells. In fish the cells in question disappear as the pancreas assumes its physiologic activity, hence the suggestion already acted on to use trypsin in human cancer. As yet, however, we have no really conclusive evidence that trypsin has any decisive effect on human cancer. It is not claimed, even by Saleeby, that trypsin has been shown to prevent the return of cancer after operative removal. There is no record of the cure of human cancer by trypsin. In experimental cancer of mice trypsin is said to cause the tumor cells to die and to crumble away, but it is plain that many more successful experiments are necessary at the hands of various investigators before it can be concluded definitely that trypsin cures cancer in mice.

We see that while the results obtained by Beard may warrant the continued study of the effects of trypsin on cancer, there is at present no basis whatsoever for the inference that a veritable cure for human cancer has been discovered. Under these circumstances it would have been more prudent, to say the least, on the part of Saleeby to have refrained from making statements in public print that are not readily differentiated from those "premature, outrageous, and, indeed, brutally cruel announcements which constantly infest the press," and which he himself condemns.

1. March, 3, 1906.

PUBLIC INSTRUCTION IN SEXUAL HYGIENE.

If the knowledge possessed by the medical profession as to the prevalence of the venereal disorders and their disastrous consequences, especially to the innocent wives and mothers of the country, and too often to their offspring, was possessed by the public generally, the evils named could not continue in their present prevalence and virulence. We warn the public freely against smallpox, we create almost a panic in regard to the "great white plague," but we actually cultivate ignorance in regard to a class of diseases which, while not always directly fatal, are directly and indirectly responsible for a vast proportion of the existing human misery. There is no doubt that with a patient and intelligent agitation of this subject by our profession, with the end of securing a more general knowledge on the part of the public of the facts, we could accomplish a vast amount of good and possibly eradicate the evils to a very great extent. A great change has taken place in the last few years, and the sign of the times is that the ban of secrecy is being removed and that light is to be shed on this subject so long shrouded in darkness. Sociologic workers are taking up the problem in earnest, and their co-operation will make effective the awakening for which the medical profession has long appealed. For example, *Charities and the Commons*, a periodical whose views on subjects more or less closely related to medicine we have often had occasion to quote with approval, publishes in its issue of February 24 communications from several prominent medical authorities on sexual hygiene and the necessity and propriety of the instruction of the public, especially the young. There need be no sacrifice of modesty or propriety if the effort is properly conducted. There are many ways in which the instruction can be given by parents to the inquiring child or by teachers and others to the still ignorant adolescent. We must remember that information is sought and secured on these subjects, and there is almost a certainty that what may be obtained from the usual sources is liable to be corrupting and dangerous both from a physical and a moral point of view. A recent writer[1] says: "Even the air of mystery that surrounds this subject when it is not frankly treated is a source of danger. For it stimulates the imagination, drives to clandestine sources of information, and tends to precocious stimulation of the sexual organism." The medical profession has much to do with the creation of a proper public opinion on this subject.

1. Prof. George A. Coe, "Education in Religion and Morals."

It is from physicians that the public has to obtain its facts, as is recognized by the sociologic journal here referred to, and it is only by the dissemination of correct information that we can combat one of the greatest social evils of all times.

THE STATURE OF THE JAPANESE.

The Japanese feel that their comparatively diminutive stature is a national humiliation, according to the reported statements of Surgeon-General Takaki of the Japanese navy. He attributes their smallness of stature to centuries of imperfect nutrition, and believes that by proper dietetics they can soon attain the full stature of the European races. Already, by change of diet, a marked improvement has been made in the Japanese navy, and he thinks that an equal effort will increase the stature of the general population. This is following Western ideals with a vengeance; notwithstanding their diminutive stature the Japanese in war have proved themselves to be fully the equals of at least one European nation, and it is perhaps a question whether their smallness might not have been an advantage to them under the conditions of modern warfare. As a correspondent of *Nature* points out, a very appreciable percentage of the Russian fire must have been ineffective as compared to that of the Japanese on account of the difference in size of the respective human targets. Still, if the Japanese wish to be large—and size has some advantages—no one can object. The main question is whether economic conditions in Japan will afford the essentials for such general dietetic alterations as are called for by the proposed experiment.

Medical News

ILLINOIS.

New Hospital.—The Methodist Memorial Hospital, Mattoon, will be formally opened and dedicated March 17.

Smallpox.—A case of smallpox was discovered in the Illinois State School for the Blind, Jacksonville, February 24.——The mayor of Colfax has ordered the postmaster to cease forwarding any mail from Colfax in order to check the spread of smallpox in that place.

Physician Gets Verdict.—A jury in the Circuit Court of Logan County brought in a verdict for $350 in favor of Dr. Hiram L. Cosby, Lincoln, against Sheriff James White of Logan County for professional services in saving the life of a man accidentally shot by the sheriff last year.

Old Offenders Brought to Time.—Mrs. E. R. Liens of Decatur, an old-time violator of the Illinois medical practice act, has been compelled by attorneys for the State Board of Health, to make a settlement for her violations, including the payment of all costs of prosecution, and to enter into a written agreement to discontinue practice. Mrs. Liens conducted a bath and massage institution in Decatur and manufactured "Lien Diphtheria Cure." From time to time she undertook the nursing of diphtheria cases, using and applying her own remedy. Suit was brought against her at the instance of the State Board of Health in a justice court, but this suit was decided in favor of the defendant. The board promptly appealed and hearing was set for the January term of the Macon County Circuit Court. The case was settled only after a number of futile efforts of the defendant to secure continuance.——After several months of constant effort to bring justice on him, the State Board of Health has finally been successful in its suit against George B. McClellan, who was advertised extensively in Illinois as "Diamond Dick," the Indian healer. Recently authorizations for McClellan's prosecution had been issued in McHenry, McLean and Marshall counties and in these counties suit was commenced, but the defendant in each instance escaped before service could be secured on him. About the middle of February he was found to be plying his trade in Adams County, in the vicinity of Quincy. He was caught and prosecuted at Golden, and a judgment for $122.85 was secured against him. Being unable to pay the fine, the defendant gave a bill of sale for his eight trunks and other paraphernalia to avoid going to jail. "Diamond Dick" is an old offender. He was fined $100 and costs in Peoria in 1901, and similarly in 1903 in Marengo, where he spent some time in jail. The energetic action of the State Board of Health has made practice impossible, and he now finds himself deprived of his goods and with cases pending against him in various counties, in which he will be promptly prosecuted if he appears.

Chicago.

Smallpox.—A case of smallpox was brought into Chicago from the West, February 27. The patient was a railway porter. No other cases have developed.

Laryngologists Meet.—A successful meeting of the middle section of the American Laryngological, Rhinological and Otological Society was held in the Northwestern University building, February 26.

More Funds for Hospital.—J. Ogden Armour has given $25,000 toward the $140,000 required for the new George Smith addition, St. Luke's Hospital. Of the required amount $80,000 is at present in the treasury.

Hospital Plans Abandoned.—It is reported that the Iroquois Memorial Association has abandoned its plans for the establishment of a hospital to commemorate those who perished in the Iroquois Theater fire, on account of lack of interest in the project.

Needs New Building.—The Chicago Eye, Ear, Nose and Throat College contemplates the erection of a new building to accommodate the increasing needs of the institution, to cost $75,000. At the annual meeting the old board of directors was re-elected.

Deaths of the Month.—February furnishes the lowest mortality rate recorded in the history of the city, 14.07 per 1,000. The total deaths number 2,217, and among the principal death causes were: pneumonia, 413; consumption, 239, nephritis, 164; heart disease, 163, and violence, including suicide, 159.

Deaths of the Week.—The total deaths from all causes for the week ended March 3 were 563, equivalent to an annual death rate per 1,000 of 14.32, a lower death rate than for the previous week or for the corresponding week of last year. Pneumonia led the death causes with 111, followed by consumption with 63, nephritis with 43, violence, including suicide, with 36, and heart diseases with 32.

Recommends International Vital Statistics System.—In THE JOURNAL, January 27, page 283, in the item concerning the report on the Chicago department of health statistics by the committee of investigation, which was appointed for the purpose by the Chicago Medical Society, the impression is given that the committee's approval covered all the methods of the department. The committee did not favor the system of classification in use by the department and recommended the international system of classification instead.

IOWA.

Inebriate Hospital Full.—The new State Hospital for Inebriates, Knoxville, which was opened early in February, is now filled nearly to the limit, and many applicants are waiting for admission.

Magnetic Healer Convicted.—D. F. Miller, a weltmerian healer of Waterloo, who was arrested for practicing surgery, medicine and obstetrics without state license, has been found guilty as charged.

New Hospitals.—A German-American Catholic hospital is to be erected in Waterloo this year, to cost about $70,000.——The newly constructed cottage for men at the Clarinda State Hospital was opened early last month.

Made Insane by Drugs.—Dr. Hiram L. Getz, Marshalltown, has been adjudged insane and committed to the Independence State Hospital. He has been suffering from diabetes for about a year and has become habituated to the use of drugs.

Will Not Admit Consumptives.—The State Board of Health, at a recent session held in Des Moines, adopted an amendment to its rules by which no teacher or child afflicted with tuberculosis is to be permitted to teach or attend school in the state.

Damages Against Physician.—In the case of Reynolds vs. Dr. Thomas U. McManus, Waterloo, in which $10,000 damages

1. Prof. George A. Coe, "Education in Religion and Morals."

were claimed on account of alleged malpractice, a verdict of $5,000 for the plaintiff was returned February 16. Dr. McManus' attorneys have asked for a new trial.

Personal.—Dr. Even F. Cowger, Riverton, has moved to Monte Ne, Ark.——Dr. Amos J. Thornber, Burlington, has been made president of the Des Moines County Medical Society, vice Dr. Nathaniel McKittrick, resigned.——Dr. Samuel W. Moorhead has been made postmaster of Keokuk.

Southwestern Association Meeting.—At the annual meeting of the Southwestern Iowa Medical Association, held in Creston, February 16, about sixty were present, and the following officers were elected: President, Dr. William R. Whitnall, Hastings; vice-president, Dr. Lynch, Greenville, and secretary and treasurer, Dr. Joseph P. Claybough, Creston.

Boy Healer a Practitioner.—In the case of the State of Iowa vs. J. G. Gallagher, "the Minnesota boy healer," charged with illegal practice of medicine, the demurrer to the indictment was overruled by the court, who stated that "a person shall be held as practicing medicine who publicly professes to heal or cure diseases or ailments of the human body if such profession be made under such circumstances as to indicate that it is made with a view of undertaking to cure the afflicted."

KENTUCKY.

Injured in Explosion.—Dr. R. E. Gatz, professor of pharmacy at the Hospital and College of Medicine, Louisville, was seriously injured by the explosion of a test tube in the laboratory, February 24.

Physician Wins Suit.—In the suit of Mrs. Kate L. McCullough vs. Dr. Elias S. Frey, Louisville, for $5,000 damages, alleged to have been due to an improper prescription, the jury returned a verdict for the defendant January 24.

Midland Physicians Meet.—The Kentucky Midland Medical Society met at Midway January 15 and elected Dr. William B. McClure, Lexington, president, and Dr. Charles W. Kavanaugh, Lawrenceburg, vice-president, and Dr. J. Harry Arnold, Versailles, secretary-treasurer.

Fires.—Fire in the Odd Fellows' Building, Smith's Mills, February 8, caused $300 damages to the office of Dr. Levin C. Royster.——On February 3 a disastrous fire occurred in Richmond which caused the loss of $1,000 each to Drs. Thompson J. Taylor and J. G. Bosley.

Colored Physicians in Trouble.—In the case of the City of Owensboro vs. Dr. Walker, charged by Dr. Jeremiah M. Peters with assault in a quarrel over a vaccination, Dr. Walker was fined $25, and during the progress of the trial Dr. Peters was charged $3 for contempt of court.

New Hospital Staff.—The Good Samaritan Hospital, Lexington, announces the following hospital staff: Consulting staff, Drs. David Barrow and Thomas H. Kinnaird; attending staff, Drs. Frank H. Clark, James C. Carrick, Edward M. Wiley, Julian T. McClymonds, Waller O. Bullock, John W. Scott, Archibald H. Barkley, Thomas Holloway, Charles W. Morris, Joseph A. Stucky, N. Lewis Bosworth and Jefferson D. Kiser.

Tri-State Meeting.—At the meeting of the Central Tri-State Medical Society of Ohio, West Virginia and Kentucky, held at Catlettsburg January 20, the following officers were elected: President, Dr. George Marshall, Portsmouth, Ohio; vice-presidents, Drs. John D. Williams, Catlettsburg, Ky., and Albert S. Brady, Greenup, Ky.; secretary, Dr. Smithfield Keffer, Ashland, Ky., and treasurer, Dr. Thomas W. Moore, Huntington, W. Va.

Personal.—Dr. Charles H. Todd of Owensboro has been elected president of the Daviess County board of health.——Dr. Clarence H. Vaught, Richmond, has been elected president of the Central Kentucky Medical Society.——Dr. Robert Rivers, Paducah, who suffered a severe burn of the right eye several weeks ago, has entirely recovered.——Dr. John V. Hayden, Salem, has been elected president, and Dr. Frederick G. La Rue, Smithland, secretary, of the Livingston County board of health.——Dr. W. Guy Eckman has been elected jail physician of Covington, vice Dr. James A. Davis.——Dr. J. Halpin O'Reilly, Louisville, is seriously ill with pneumonia.——Dr. Leslie Rudolph, Woodville, who has been critically ill, is improving.

MAINE.

Gift to Hospital.—An anonymous friend of the Knox County General Hospital, Rockland, has made his annual donation to the institution, to be used for the maintenance of the James A. Creighton memorial free bed.

Northern Maine Hospital Opened.—The Northern Maine General Hospital, Eagle Lake Mills, was opened for the reception of patients January 15. The building contains forty rooms and three wards, and will have cost, when completed, about $12,000.

Clinical Society Meets.—The Waterville Clinical Society held its annual meeting February 22 and elected the following officers: President, Dr. Edward W. Boyer; vice-president, Dr. H. E. Milliken; secretary and treasurer, Dr. Frederick C. Thayer, and business committee, the vice-president, secretary and Dr. B. B. Cragin.

Personal.—Dr. Herbert S. Sleeper, Lewiston, has been elected a member of the local board of health.——Dr. Bigelow T. Sanborn has been elected a member of the Augusta City Hospital corporation.——Dr. Milton C. Wedgewood, Lewiston, is seriously ill.——Dr. David S. Hunnewell, Madison, who has been ill with bronchitis, is reported to be much improved.

Academy Election.—At the annual meeting and banquet of the Maine Academy of Medicine and Science, held in Portland, Dr. Clarence A. Peaslee, Bath, was elected president; Dr. Albion H. Little, Portland, corresponding secretary; Dr. Frank Y. Gilbert, Portland, statistical secretary; Dr. Gilman Davis, Portland, assistant secretary, and Bertrand G. March, Portland, treasurer.

County Society Meeting.—The twelfth annual meeting of the York County Medical Society was held at Biddeford, January 11. The following officers were elected: President, Dr. William W. Smith, Ogunquit; vice-presidents, Drs. M. Hubbard Ferguson, Biddeford, and Roland S. Gove, Sanford; secretary, Dr. Clarence E. Thompson, Saco, and treasurer, Dr. Harry L. Prescott, Kennebunkport.

Communicable Diseases.—Smallpox is still being reported in the eastern part of the state, the latest reports coming from Houlton, Cary and Linneus.——Typhoid fever has appeared in the lumber camp and mill of S. P. Dean & Son Company, west of Dudley. The condition is rendered more serious by the fact that the camp is so far removed from medical aid.——A colored car cleaner for the Boston & Maine Railroad Co. at Portland was taken sick at his work at the Union Station, February 24. He was examined by physicians and found to be suffering from smallpox. He was removed to the detention hospital.——A case of smallpox was discovered in a lumber camp in the town of Ludlow this past week. The authorities were notified and the camp was quarantined.

MARYLAND.

Patent Medicine Bill.—A new patent medicine bill, said to be satisfactory to the drug trade, has been introduced in the legislature.

Vital Statistics Bill.—Favorable report has been made in the senate by the committee on sanitary conditions on a bill to enable the State Board of Health to collect vital statistics when local officers fail to collect them.

Tuberculosis Sanatorium Bill.—A bill has been introduced into the senate creating the Maryland Tuberculosis Sanatorium and making appropriations for its erection and maintenance. It requires the institution to be accessible by both railroad and water transportation, and places it under the control of a board of managers composed of the governor, the treasurer, the comptroller of the treasury, ex-officio, and six other persons, who shall be appointed by the governor. Of these six, two are to serve for two years, two for four years and two for six years from May 1, 1906. Thereafter the governor is to appoint two members of this board, to serve for six years, biennially. They are to be chosen with a view to their intelligence, experience and character and without reference to ecclesiastical or party ties. The bill appropriates $100,000 for the establishment of the institution, land and buildings, and $25,000 annually for its support. It has the approval of the state tuberculosis commission and State Board of Health, and is backed by the medical profession.

Baltimore.

February Deaths.—During February 23 persons died from whooping-cough (which is quite prevalent), 10 from influenza, 119 from consumption and 177 from pneumonia.

Smallpox.—Seven cases of smallpox were reported during the week ended February 25; 8 patients, all colored, were sent to the city quarantine station from Baltimore County on the same day; 19 cases in all were reported in the city during February.

Addresses Delivered.—Dr. Ira Remsen, president of the Johns Hopkins University, addressed the Johns Hopkins Alumni in New York City, March 2.——Dr. Howard A. Kelly spoke to 1,000 men at St. John's Church, Roanoke, Va., Febru-

ary 25, on "Purity of Manhood."——Dr. N. H. D. Cox lectured March 4 on "Missions in Africa," where he spent three years as a missionary.

Hospital Report.—According to the twenty-eighth annual report of the Presbyterian Eye, Ear and Throat Charity Hospital, 11,803 patients were treated in 1905; 10,605 of these being white. There were 7,012 eye, 2,348 ear and 2,443 throat cases. There were performed 1,392 operations on the eye, 166 on the ear and 750 on the nose and throat. Since the opening of the hospital 227,048 cases have been treated.

MICHIGAN.

New Hospital Soon Ready.—The new Lutheran Hospital of Bay City will be ready to receive patients April 1.

Personal.—Dr. W. Francis Ertell, Kalamazoo, has been confined to the house by illness.——Dr. Andrew P. Biddle, Detroit, is seriously ill with inflammatory rheumatism.

Patent Medicine Ordinance.—An ordinance to prohibit the free distribution of samples of patent medicines, drugs, ointments, pills, powders and pellets on the streets or from house to house in the city of Grand Rapids, was passed by the common council, February 19.

Smallpox.—Smallpox is still increasing in Gladstone, and several cases are reported among the employés of the Cleveland Cliff Iron Company, Kipling.——The disease has appeared in the vicinity of Calumet, and it is said that in the logging camps 200 men are at present under quarantine.

Banquet to Dr. Harison.—A dinner to welcome Dr. Beverly D. Harison, secretary of the Michigan State Board of Registration in Medicine, formerly of Sault Ste. Marie, to Detroit, was given by Dr. Fleming Carrow, February 21, at which a number of the prominent physicians of Detroit were present.

Trichinosis.—Dr. J. W. Gustin, chairman of the Bay City board of health, has located the source of the trichinosis infection which has caused more than thirty cases of illness and one death in the city, at a farm near Vassar, where the hog from which the infected meat was cut, was purchased.

New Dean of the Dental Department.—Prof. W. D. Miller of the University of Berlin has been offered and has accepted the position of dean of the Department of Dentistry of the University of Michigan, Ann Arbor. He will come to this country and begin his work in 1907. Dr. Miller's researches on the bacteriology of the mouth and dental caries are well known. He is a graduate of the University of Michigan, but has been the professor in the dental department of the University of Berlin for twenty-five years.

NEW YORK.

Water for Long Island Towns.—The Citizens' Water Supply Company has made a contract to build a plant at Great Neck and supply that place and Thomaston with water. The entire plant will cost nearly $100,000 and will have a capacity of 2,300,000 gallons a day.

Osteopaths Plead.—Osteopaths in large numbers attended the joint hearing on February 28 before the senate judiciary and assembly public health committees to plead for the passage of a bill establishing a board of examiners for osteopathic physicians. The measure was opposed by physicians from all over the state.

A Field Hospital.—A bill was signed by Governor Higgins on February 26 providing for the organization of a field hospital to be attached to the headquarters of the national guard, to consist of one surgeon with the rank of major, three assistant surgeons, six field hospital sergeants, eight corporals, thirty privates, one musician and one cook.

Bills Proposed.—A bill has recently been introduced into the legislature providing for a reservation on both sides of the Bronx River, from Kensico to Bronx Park. The reservation is considered necessary to prevent the pollution of the Bronx River by the towns to the north.——Another bill provides that "any person who by word of mouth or by written or printed circulars, messages, letters, documents, pamphlets, newspapers or magazine articles or publication of any kind, made, issued or circulated by him or by his authority, advocates or teaches the duty, necessity or propriety of putting to death by legal sanction or otherwise persons afflicted with an incurable disease because of their condition, is guilty of a felony."

Insanity Increasing.—According to the annual report of the state commissioner in lunacy submitted to the legislature, insanity is on the increase in this state. In 1892 there was one insane person to every 337 people in the community. Now the ratio is one to every 299. The commission considers this condition grave, but says that the new cases last year were fewer than the previous year. There are 27,406 insane in the public and private institutions of the state and 6,000 insane are maintained in their own homes. In the state institutions the net increase last year was 499, the lowest in ten years. It cost the state $4,593,477 to care for the insane last year. Improvements to insane hospitals cost $838,000 during the year. There were 5,316 new cases of insanity developed last year, of which the state institutions discharged 1,442 as recovered and 1,257 as improved. The state hospitals for this year asked $2,000,000 for betterments, but the commission has cut this to $1,500,000. The legislature is asked to appropriate $4,950,000 for the care of the insane this year. The commission expects that with the money available for improvements and additions to the state hospitals the overcrowding in these institutions will cease before the end of the year. The commission presents the first report to the state board of alienists, which is especially charged with the duty of returning to their homes alien lunatics who find temporary domicile in the state. This work was hitherto undertaken by the commission of the state hospital superintendents. Owing to the activity of the new board the state was relieved during the past year of 417 insane patients of the alien class.

Report of New York State Health.—The report of the New York State Department of Health for 1905 states that the most conspicuous feature of epidemic diseases has been the continued prevalence of cerebrospinal meningitis and the increase in its mortality. The disease was most prevalent in the maritime district and mostly in the borough of Manhattan. At the same time there was a moderate increase in the Hudson and Mohawk valley districts, and in the east central and the Lake Ontario and western districts. This, however, was anticipated, as it has been observed that a considerable local outbreak is often attended in subsequent seasons by much more widespread prevalence. Smallpox existed in a few places in the state during the year, but there were no deaths from it outside of New York City. The general mortality of the year was excessive, the spring mortality exceeding that of the summer; this was due chiefly to pneumonia and acute respiratory diseases, influenza being one of the chief of these. During the year rules were adopted requiring that certificates of stillbirths be filed in the State Bureau of Vital Statistics. These certificates showed that there were about 10,000 stillbirths in the state during the year. The death rate in the larger of the state institutions was 5.56 per 100, against 6.85 during the previous year. The report states that the registration of births is far from satisfactory, and that the most incomplete registrations are in the cities of Albany and Troy. The registration of marriages, while more complete than that of births, is not satisfactory, and the report advises the enactment of a law requiring the contracting parties to procure a marriage license from the county clerk of the county in which the marriage is to be performed. It is also recommended that for statistical purposes as well as for the safe keeping of original certificates of births, marriages and deaths in the state, all such certificates outside the city of Greater New York should be filed with the State Department of Health. The work of the bureau of sanitary engineering in conserving the water supplies of the state is also noted. The report states that the department should be better equipped to protect the water supplies of the municipalities of the state, thus enabling it to prevent epidemics of typhoid fever due to impure water. General investigations of sewage systems and of sewage disposal were made. New work is outlined and needed changes and improvements are suggested.

New York City.

Centennial Celebration.—At a meeting of the Medical Society of the County of New York, held January 22, it was voted to celebrate the centennial of the incorporation of the society by a dinner at the Hotel Astor on the evening of April 4.

Illegal Practitioners Fined.—In the Court of Special Sessions, January 11, Anthony Ofrias, a druggist of 382 Tenth Avenue, was fined $250 for illegally prescribing for a fee.——John Justin, an osteopath, was fined $100 for practicing without a license.

Hospital Dedicated.—Archbishop Farley dedicated the new St. Francis Hospital on March 1. It occupies the entire block bounded by One Hundred and Forty-second and One Hundred and Forty-third Streets, Brook and St. Ann's Avenues, and contains 400 beds.

Harvey Society Lecture.—The twelfth lecture in the Harvey Society course will be delivered by Prof. Theobald Smith of the Harvard Medical School at the New York Academy of

Medicine, March 10, at 8:30 p. m. Subject: "The Parasiticism of the Tubercle Bacillus and Its Bearing on Infection and Immunity."

Needs of Hospital.—The New York Society for the Relief of Ruptured and Crippled reports that in 1905, 963 patients, mostly children, were treated in the hospital, and that 44,157 treatments were given outside. The hospital is very much in need of funds and runs $40,000 behind its permanent subscriptions every year.

Homes for Poor Convalescents.—Comptroller Metz urges the leasing by the city of the Manhattan Beach and the Oriental properties, including the hotels, for convalescent homes for the city's poor. The Austin Corbin estate, which owns the hotels, is willing to lease these two properties to the city for $150,000 a year, or to sell outright for $3,150,000.

More Physicians for Bellevue.—As the result of recent action taken at a meeting of the board of trustees of Bellevue and the Allied Hospitals, Bellevue will hereafter have four paid physicians in its receiving ward. They will receive a salary of $600 annually, will serve four-hour tours of duty, and will probably be chosen from the internes of the hospital.

Hospital Economies.—A preliminary meeting of representatives of more than a score of hospitals was held recently with a view to effect economies on hospital management. It was suggested that the city take charge of the ambulance service and establish a system of receiving stations throughout the city, where patients might first be taken and then sent to such hospitals as were able to receive them.

Contagious Diseases.—There were reported to the sanitary bureau for the week ending February 24, 1,636 cases of measles, with 34 deaths; 373 cases of tuberculosis, with 167 deaths; 341 cases of diphtheria, with 77 deaths; 214 cases of scarlet fever, with 8 deaths; 22 cases of typhoid fever, with 9 deaths; 15 cases of cerebrospinal meningitis, with 20 deaths, and 62 cases of varicella; a total of 2,763 cases and 315 deaths.

Hospital Statement Corrected.—At the annual meeting of the trustees of the Hebrew Infant Asylum it was announced that this institution had recorded but one death during the year and that this was probably the lowest mortality for any such institution in the country. It seems that the Colored Orphan Asylum had only one death last year out of an average of 327 children, more than twice the number sheltered by the former institution.

For Quieter City.—The representatives of various women's organizations were on hand at the City Hall on March 1 to endeavor to make an impression on the public health committee of the board of aldermen with reference to the suppression of street noises. Dr. Darlington stated that the health department was frequently called on to suppress noises, and that when a real nuisance was found it was peremptorily suppressed.

Personal.—Dr. Jesse B. Mickle, former superintendent of the Metropolitan Hospital on Blackwell's Island, has resigned on account of failing health.——The two upper floors of Dr. Franklin Shiels' home were destroyed by fire, causing damage amounting to $5,000.——A fire occurred in Dr. Robert Abbe's home on March 1 which did about $100 damage.——The Rev. John J. Collins has resigned the presidency of Fordam University Medical College in order to take up educational work in Jamaica.

Diphtheria in Hospital.—Dr. I. O. Woodruff, head of the medical division of Bellevue Hospital, was attacked with diphtheria on March 1, and at once removed to Minturn Hospital. It is alleged that the entire hospital, and especially the children's wards, had a narrow escape from a general infection. The hospital physicians contend that while they held that the cases which caused the disease to spread were diphtheria, the board of health declared them to be only exaggerated cases of tonsillitis.

For Seaside Hospital.—John D. Rockefeller, Jr., has offered to give the Association for the Improvement of the Condition of the Poor $125,000 toward the erection of a permanent seaside hospital for children suffering from tuberculosis of the bones and glands on condition that a like amount is raised before July 1, and that the permanent maintenance of the hospital is assured. An anonymous donor has promised to give $25,000 of the fund that must be secured. Jacob H. Schiff, Mortimer L. Schiff and Percy R. Pyne have promised $5,000 each, and Felix M. Warburg, $2,000.

Subway Consumption.—Autopsies made at the Bellevue morgue show that some deaths have been due to fine particles of steel in the lungs. This statement was made public after autopsies made on two subway track walkers within the past month. Dr. Soper, in his report to the rapid transit commission, declared that in samples of subway dust examined by him there occurred more than 60 per cent. of the minute steel particles, and it has been established that the steel dust generated by friction in the subway amounts to a ton a mile each month. Dr. Soper finds the subway cleaner than the streets. General results show that there are twice as many bacteria in the air of the streets as there are in that of the subway. The subway could be made more healthful by substituting a smooth concrete surface for the broken stone ballast between the tracks that forms a nesting place for dirt and germs.

The Smoke Nuisance.—The recent widespread increase of the smoke nuisance has caused a renewal of the agitation for the stricter enforcement of the law governing the escape of smoke and noxious gases within the city limits. The Academy of Medicine has taken the matter up and the president, Dr. Charles L. Dana, has appointed a committee consisting of Drs. Joseph D. Bryant, Robert Abbe and Walter B. James to investigate the matter. Dr. F. M. Crandall, president of the County Medical Society, has also taken up the investigation. On February 23 Dr. Darlington read a paper on "Municipal Regulation of the Smoke Nuisance" before the Society of Chemical Industry, in which he depicted the difficulties of the department in obtaining the conviction of burners of soft coal. Charles T. Barney, who has made an extensive study of this question, says that under a certain section of the charter it is provided that in all judicial proceedings orders of the health department shall at all times be regarded and treated as *prima facie* just and legal, and that whoever shall violate an order of the health department shall be guilty of a misdemeanor and be subject, in addition, to a penalty of $250, to be recovered in a civil action. It was stated that until September, 1905, the department acted under these sections and obtained prompt compliance with its orders.

PENNSYLVANIA.

Upholding Dr. Dixon.—At the meeting of the Clinton County Medical Society, January 18, resolutions were adopted approving the actions of Dr. Samuel G. Dixon, the state commissioner of health, in enforcing the vaccination laws of Pennsylvania; and unanimously agreeing that the way to prevent smallpox is by vaccination; and that those who try to prevent and bring it into contempt only show their ignorance.

Pennsylvania Relief Report.—The monthly report of the Employés' Relief Fund for the Pennsylvania Railroad Company's lines east of Pittsburg and Erie shows that the payments of benefits to its members and the families of deceased members for the month of January amounted to $143,681.41, of which $59,081.86 were on account of death, and $84,599.55 on account of disablement by sickness and accident. The payments thus far are stated to have amounted in the aggregate to $14,484,233.46, of which $5,958,326.79 were on account of deaths and $8,525,906.67 on account of disability.

Gifts for Hospitals.—W. L. Schaefer, Pottsville, has given to the Pottsville Hospital $5,000 to endow a bed for sick and injured children in memory of his deceased wife.——The family of the late J. Preston Thomas, West Whiteland, have given $6,000 to the Chester County Hospital to endow a room in that institution. By the will of Thomas Wiggins, Berwyn, $500 was bequeathed to the institution.——Braddock General Hospital received more than $4,000 as Christmas offerings.——By the will of the late Martin Bates, Lancaster, $10,000 is bequeathed to the Lancaster General Hospital.——By the will of the late James B. Oliver $5,000 is devised to the South Side Hospital, Pittsburg.——W. Ellis Corey has contributed $10,000 toward a hospital for Braddock.——By the will of John Porterfield, Allegheny, the following institutions are benefited: United Presbyterian Memorial Hospital, $10,000; Presbyterian Hospital, Allegheny, $10,000; St. Joseph's Hospital, Allegheny, $10,000, and on the death of his sister $100,000 is to be given to the Allegheny General Hospital.

Society Officers Elected.—At the regular meeting of the Clearfield County Medical Society, Clearfield, January 11, the following officers were elected for the year: President, Dr. Hiram O. King, Curwensville; vice-president, Dr. John S. Kelso, Woodland; secretary and treasurer, Dr. C. R. McGirk; censor, Dr. Samuel J. Waterworth, Clearfield, and committee on public policy and legislation, Drs. Samuel C. Stewart, Clearfield; J. Frank Rowles and James L. Henderson, Osceola Mills.——At the regular quarterly meeting of the Franklin County Medical Society the following officers were elected: President, Dr.

Charles M. McLaughlin, Greencastle; vice-presidents, Drs. John C. Greenawalt, Chambersburg, and William F. Sappington, Webster Mills (Fulton County); secretary, Dr. John J. Coffmann, Scotland; assistant secretary, Dr. H. Clay Devilbiss, Chambersburg; treasurer, Dr. David Maclay, Chambersburg, and censor, Dr. T. H. Weagly, Marion.——At the annual meeting of the Huntingdon County Medical Society, January 11, the following officers were elected: President, Dr. John C. Fleming, Shirleysburg; vice-president, Dr. Charles A. McClain, Mount Union; treasurer, Dr. George G. Harman, Huntingdon; secretary and reporter, Dr. Howard C. Frontz, Huntingdon, and censors, Drs. Rudolph Myers, Huntingdon; Charles Campbell, Petersburg, and Charles R. Bush, Orbisonia.——At the annual meeting of the Lancaster County Medical Society the following officers were elected: President, Dr. Leroy K. Leslie, Bareville; vice-presidents, Drs. John P. Roebuck, Lititz, and Samuel H. Heller, Lancaster; secretary, Dr. Park P. Breneman, Lancaster; treasurer, Dr. George H. Rohrer, Lancaster; reporter, Dr. Park P. Breneman, Lancaster, and censors, Drs. George W. Berntheizel, Columbia; Oliver Roland, Lancaster, and James Mitchell, Lancaster.——At the annual meeting of the Lehigh County Medical Society the following officers were elected: President, Dr. Augustus W. Hendricks, Allentown; vice-presidents, Drs. Palmer J. Kress, Allentown, and Morris F. Cawley, Allentown; recording secretary, Dr. J. Treichler Butz, Allentown; corresponding secretary, Dr. Willard D. Kline, Allentown; treasurer, Dr. Albert J. Erdmann, Allentown; censors, Drs. H. Herbert Herbst, Allentown; Martin J. Backenstoe, Emaus, and W. B. Erdmann, and reporter, Dr. William A. Hausman, Jr., Allentown.——At the fifty-seventh annual meeting of the Medical Society of Northampton County, held in Easton, January 19, the following officers were elected: President, Dr. Arthur D. Reagan; Easton; vice-presidents, Drs. J. Frank Hahn, Bath, and Harry C. Pohl, Nazareth; secretary and reporter, Dr. J. J. Quiney; corresponding secretary, Dr. John E. Fretz, Easton; treasurer, Dr. Joseph S. Hunt, Easton, and censors, Drs. Charles McIntire, Easton; D. H. Keller and William L. Estes, South Bethlehem. ——At the annual meeting of the Perry County Medical Society the following officers were elected: President, Dr. F. A. Gutshall, Blain; vice-presidents, Drs. W. Homer Hoopes, Newport, and Edward E. Moore, New Bloomfield; secretary, Dr. A. Russell Johnston, New Bloomfield; treasurer, Dr. David B. Milliken, Landisburg, and reporter, Dr. Luther M. Shumaker, Elliottsburg.——At the annual meeting of the Warren County Medical Society, January 10, the following officers were elected: President, Dr. William M. Robertson, Warren; vice-presidents, Drs. Otis S. Brown, Warren, and John C. Russell, Warren; treasurer, Dr. Morris S. Guth, Warren; secretary and reporter, Dr. Mary Conant, and censors, Drs. Michael V. Ball, Warren; Christian J. Frantz, Warren, and Charles W. Schmehl, Warren.

Philadelphia.

Hospital Examinations.—The examination for two resident physicians for the Easton Hospital will be held in Easton on Saturday, March 24.

Hospital Report.—A remarkable year's record is shown by the report of the Maternity Hospital. There was but one death in the 72 cases treated during the year, and this was the first death in three years.

Dr. Allen Entertained.—Dr. Richard H. Harte gave a dinner at his residence, March 3, in honor of Dr. Dudley P. Allen of Cleveland, Ohio, secretary of the American Surgical Association. Dr. Allen delivered an address before the Philadelphia Academy of Surgery at the College of Physicians, March 6.

Charitable Bequest.—By the will of the late Louisa Dieterich the Rush Hospital for Consumptives will receive $10,000 for the maintenance of two free beds, to be called the Daniel P. Dieterich free bed and the Louisa Dieterich free bed. A bequest of $10,000 is also made for the use of the hospital. After other bequests the balance of the estate, valued at $54,000, is left in trust for the benefit of the hospital.

Society Officers Elected.—At the annual meeting of the Northern Branch of the Philadelphia County Medical Society the following officers were elected: President, Dr. Howard D. Geisler; vice-president, Dr. Samuel H. Brown; recording secretary, Dr. R. E. Shrom; treasurer, Dr. John W. Millick; corresponding secretary, Dr. Thomas R. Currie; censor, Dr. Thomas Shriner, and librarian, Dr. Robert J. Hess.

Personal.—Dr. George W. Pfromm has resigned as a member of the assistant medical staff of the Medico-Chirurgical College Hospital.——Dr. Llewellys F. Barker, professor of medicine, Johns Hopkins University, addressed the James Tyson Medical Society of the University of Pennsylvania on "Personal Observations of the Bubonic Plague in China and the Philippines," February 28.——Mr. G. C. Signor of Tioga County has been appointed superintendent of the Medico-Chirurgical Hospital to take the place of J. E. Ellis. Mr. Signor assumed his duties of director of the institution March 1.

Wistar Institute Honored.—The authorities of the University of Pennsylvania have been notified that the Wistar Institute of Anatomy has been chosen as the central institute for interacademic brain research in the United States. The Imperial Academy of Sciences at Vienna voted the Wistar Institute the best for brain research in this country at a recent meeting and this announcement has just been made. Recently Dr. Henry Donaldson of Chicago, Dr. T. P. Mall of Johns Hopkins Medical School, and Dr. Minot of the Harvard Medical School were elected members of the central commission for interacademic brain research. The work of the brain research at the institute will be under the direction of Dr. Donaldson.

Health Report.—The total number of deaths reported for the week reached 670. This is an increase of 53 over the number reported last week and an increase of 117 over the number reported in the corresponding week of last year. The principal causes of death were: typhoid fever, 43; measles, 16; whooping cough, 10; diphtheria, 9; consumption, 60; cancer, 28; apoplexy, 25; heart disease, 61; acute respiratory disease, 121; enteritis, 27; Bright's disease, 44; appendicitis, 7; suicide, 9; accidents, 33, and marasmus, 6. There were 469 cases of contagious disease reported, with 54 deaths, as compared with 483 cases and 58 deaths for the preceding week. Typhoid fever is still on the increase; 352 cases were reported, with 43 deaths, as compared with 340 cases and 39 deaths in the week previous. There are under treatment at the present in the city about 2,500 persons suffering with typhoid infection.

Widener Memorial for Crippled Children Opened.—The Widener Training School for Crippled Children, with its thirty-five acres of ground attached, was thrown open to the public for inspection, March 3. This is supposed to be the finest institution of its kind in the world. The home has been created by Peter A. B. Widener as a memorial to his wife, Josephine Widener. It is intended to be a surgical aid to train crippled boys and girls so that they may be able to care for themselves and earn a living. The buildings are of brick and stone, in the colonial style of architecture. The group of buildings is an irregular square of about 400 feet. The main building is 265 feet long, with a depth of 90 feet. In the building are the surgical wards, the kitchen and all the appendages of the culinary department. In one end of the basement is a gymnasium, with dressing rooms and bath rooms. On the second floor are the surgical wards, and on the third floor the operating rooms and laboratory, with rooms for etherization and for use of the surgeons. Lifts and inclined planes will render the transfer of patients from one floor to another easy and painless. The educational buildings will be fitted with machinery and apparatus so that mental and manual training will be carried on together.

Physicians and the Lay Press.—At the meeting of the County Medical Society, February 28, resolutions were ordered to be referred to the directors for further action providing that the society declares that the appearance of articles in the daily press specifically describing the diseases of certain patients and the treatment thereof, together with names of attending physicians, etc., is a violation of Article 1, Section 7, Chapter 2, of the Principles of Ethics of the American Medical Association; that the onus of proof of non-responsibility for such publication shall be on those whose names appear in such articles; that if the person so charged fails to convince the censors of non-responsibility they shall cause to appear in two successive issues of the *Weekly Roster* a statement of the facts and a notice that unless the offender shall sign a written agreement to abstain from further similar offense all members of the society shall decline consultation with such offender; and that in case of a second offense the offender shall be liable to expulsion; that the assistant secretary shall keep a scrap-book containing copies of all articles appearing in the daily press relating to regular physicians of Philadelphia, and that this book shall be kept on the secretary's desk for the inspection of members, and that the titles of all articles shall be read at each meeting; that the directors of the society be requested to prepare amendments of the by-laws to accord with these resolutions, and that these resolutions shall appear in every issue of the *Weekly Roster* until and including that for the business meeting of the society in April.

VIRGINIA.

Dr. **Chiles Acquitted.**—Dr. Luther R. Chiles, Norfolk, indicted for having performed a criminal operation on Miss Atkinson, whose death followed, was acquitted February 19.

Oppose Tax.—The physicians of the state are making another effort to obtain release from the state and local taxes imposed on practitioners of medicine. A committee of which Dr. George Ben Johnston, Richmond is chairman, is preparing a bill to obtain release from this tax, which will be introduced at this session of the legislature.

Epileptic Hospital Bill Passes.—The senate has passed a bill creating a state epileptic hospital on the site given for that purpose by the late S. R. Murkland on the Amherst Palisades, opposite Lynchburg. The colony will be a branch of the Western State Hospital, Staunton, and the state will provide for its maintenance by increasing the appropriation for that institution.

Personal.—Dr. Walter A. Plecker, Hampton, has been elected health officer of Elizabeth City County to succeed Dr. John W. Brown, resigned.——Physicians of Lynchburg presented Dr. Abram I. Clark of that city with a silver loving-cup as a token of esteem, from the Academy of Medicine on January 20, the eighty-ninth birthday anniversary of Dr. Clark.——Dr. Charles R. Grandy, Norfolk, has been appointed a member of the State Board of Health, vice Dr. Vernon G. Culpepper, Portsmouth, deceased.——Dr. Chertsey Hopkins, assistant physician at the Western State Hospital, Staunton, has resigned.——Dr. William F. Drewry, who some time ago was elected superintendent of the Western State Hospital, has decided not to accept the position, but to remain where he has been for a number of years, superintendent of Central State Hospital.——Dr. George S. Walker, who has been assistant superintendent of the Western State Hospital for the past twenty years, has resigned.——Dr. J. S. De Jarnette was elected superintendent to succeed the late Dr. Benjamin Blockford.——Governor Swanson has appointed Dr. Frank S. Hope, Portsmouth, quarantine officer for the district of Elizabeth River to succeed Dr. Julian Norfleet.

GENERAL.

Change Date of Western Surgical.—The Western Surgical and Gynecological Association will meet in Salt Lake City, Aug. 31 and Sept. 1, 1906. The change from the usual Christmas time for the meeting is in accordance with a general vote just taken. Dr. A. T. Mann, Pillsbury building, Minneapolis, is secretary-treasurer.

Monument to Mikulicz.—An international committee has been formed to solicit and receive contributions for a monument in honor of the late distinguished surgeon, Johannes von Mikulicz-Radecki, of Breslau, Germany. Those who wish to express in this way their esteem and affection for Professor von Mikulicz, their appreciation of Germany's splendid achievements in surgery and their desire to strengthen the cordial relations existing between the men of science of the two countries, may send contributions to any of the following: Drs. W. W. Keen, 1729 Chestnut Street, Philadelphia; W. S. Halsted, 1201 Eutaw Place, Baltimore; J. B. Murphy, 100 State Street, Chicago; F. Kammerer, 51 East Sixty-sixth Street, New York.

International Medical Congress.—The arrangements of the American national committee have now been fully made. Those who have planned to present papers at the congress should at once send short abstracts of their papers to the secretary-general, Dr. Miguel Bombarda, Madrid, Spain. The official delegates from this country have been appointed by the secretary of state as follows: Drs. L. S. McMurtry, Louisville; John H. Musser, Philadelphia; Frank Billings, Chicago; W. W. Keen, Philadelphia; Nicholas Senn, Chicago; F. A. Shattuck, Boston; R. Matas, New Orleans; Albert Vander Veer, Albany; Walter Chase, Boston; E. DeWitt Connell, Portland, Ore., and Ramon Guiteras, New York City. At the congress an orator will represent each country by delivering an oration before the assembled sections of the meeting. Dr. Nicholas Senn will represent the United States and will deliver an oration on "The International Study of Carcinoma." Further information respecting the congress may be found in THE JOURNAL, Feb. 17, 1906, page 521, and Jan. 20, 1906, page 207.

CANADA.

Health of Toronto.—Toronto was a healthy city in February. The number of cases of diphtheria in February was 59, as against 96 in January and 111 in February, 1905. There were 9 cases of scarlet fever and 15 of typhoid fever.

Compulsory Vaccination in Toronto.—The board of education of the city of Toronto passed a resolution doing away with the compulsory vaccination of school children. Dr. Ogden, one of the oldest members of the board, refrained from voting, favoring sending the question to the health officer for his opinion.

Society Elects Officers.—The annual meeting of the council of the College of Physicians and Surgeons, New Brunswick, was held at Fredericton, February 9, when the following officers were elected for the ensuing year: President, Dr. J. P. McInerney; treasurer, Dr. Thomas Walker St. John; registrar, Dr. Stewart Skinner.

Ontario Health Report for January.—During January the total number of deaths from all causes was 2,477. There were 141 cases of smallpox, with no deaths, and 168 cases of typhoid fever, with 51 deaths. Fort William, at the head of Lake Superior, had 106 of these cases, with 13 deaths. There were 165 deaths from consumption.

Ontario Nurses to Organize.—The nurses of Ontario have before the legislature a bill by which they seek incorporation as the "Graduate Nurses' Association of Ontario." The government is to be vested in a council of fifteen, four of whom are medical men. Power also is asked to prescribe courses of study, to conduct examinations and to issue diplomas.

Personal.—Dr. J. W. Stirling, Montreal, has been appointed to the chair of ophthalmology at McGill University, to succeed the late Dr. Frank Buller. Dr. Stirling was born at Halifax in 1859 and received his degree from the University of Edinburgh in 1884.——Dr. A. B. Macallum, professor of physiology in the University of Toronto, has been appointed a fellow of the Royal Society of England.——At the annual convocation at Queen's University, Kingston, on April 12, the degree of doctor of laws will be conferred on Dr. C. K. Clarke, superintendent of the Toronto Provincial Hospital for the Insane.

Hospital News.—The Charles Alexander Memorial Fund in aid of the Montreal General Hospital now amounts to $200,112. Fifty thousand dollars are needed to complete the memorial. Dr. G. H. Mathewson has been appointed oculist to the hospital to succeed Dr. J. W. Stirling.——The Alexandra Contagious Diseases Hospital, Montreal, is now rapidly nearing completion. The institution will be managed by a medical board, composed of three members, one from the General Hospital, one from the Royal Victoria Hospital and one from the Western Hospital. Dr. J. C. Fysche, a graduate of McGill, will be superintendent, and he is now in training under Dr. McCallum, of the Boston City Hospital.——Dr. R. W. Bruce Smith, inspector of public institutions in Ontario, recommends that an asylum be located in Ontario north of Lake Superior. He also recommends special treatment for chronic inebriates. During 1905 there were 11,000 convictions in Ontario, with a population of 2,000,000.——According to the thirty-eighth annual report on the lunatic and idiot asylums of Ontario there were 6,213 patients certified insane on Sept. 30, 1905, an increase of 632 for the year, during which 1,130 patients were admitted.

FOREIGN.

Unveiling of Bust of Liebault.—A bust of A. A. Liébault, the founder of the "Nancy school," has been installed in the School of Psychology at Paris and was unveiled with much ceremony, February 1. Prominent psychologists were present from various countries and numerous telegrams were received from others unable to be present. Eighty persons partook of the banquet. Liébault was born in 1823 and died in 1904. His efforts to introduce scientific hypnotism into therapeutics dated from early in the sixties.

War on Consumption in the Home.—The management of the Brompton Hospital for Consumption—London's great hospital for the treatment of this disease—is about to initiate an important departure in its treatment of tuberculosis. A joint subcommittee has been appointed, under the advice of the medical staff, to consider the feasibility of reaching the source of infection in the homes of the patients. Dr. Newsholme, the medical officer of health for Brighton, will co-operate and it is hoped that every member of a consumptive's family may be brought under the direct care of the hospital staff.

Prizes for Designs for Village Baths.—The German Public Bath Society has offered prizes of $150 and $100 for the best design for public baths for small towns and villages. The competition is designed to arouse interest in the subject of public baths in small places, bathing in rivers and ponds not being considered enough for the hygiene of the inhabitants all the year around. The jury to pass judgment on the designs consists of prominent physicians, architects and others. The designs must be sent in at once to the office of the society, Berlin NW. 6, Karlstrasse 19, addressed to the *Deutsche Gesellschaft f. Volksbäder.*

Pure Food Regulations in Madrid.—The *Siglo Medico* gives the details of decrees recently promulgated by the alcalde of Madrid which are in accordance with the most advanced ideas in regard to the necessity for arresting the adulteration of food and other antihygienic evils. One clause enforces the screening of food away from flies, another forbids the use of impure water in cooking and washing dishes. A fine of from 5 to 50 pesetas ($2.50 to $25) is to be imposed for infraction of the rules. Our exchange comments that the decrees would be worthy of the highest encomiums if only they were meant to be enforced. Experience has shown that they will never get beyond the pages of the official records on which they make such a fine showing.

Increase in Liverpool of Drunkenness Among Women.—The statistics of the chief constable of Liverpool show that of 7,700 charges of drunkenness more than one-third were against women. At the recent annual meeting of the Liverpool Society for the Prevention of Cruelty to Children it was stated that the society last year dealt with 10,288 children, and that the chief cause of the misery, cruelty and neglect was drunkenness, especially on the part of the mothers, and that while drunkenness among men is actually decreasing, among women it is greatly on the increase. The Liverpool licensing bench has resolved that the police should be instructed to report houses where female drinking is excessive, so that the bench may deal with them under the compensation clause of the licensing act.

Silver Jubilee of Berlin Internal Medicine Society.—On February 19 the Berlin *Verein für innere Medizin* celebrated the twenty-fifth anniversary of its foundation. It was organized in 1881 mainly by the efforts of Ernest von Leydon, and is now one of the largest associations of the kind in Germany. Its transactions contain many notable communcations, and its success in conducting collective inquiries on various scientific themes attracted wide attention, especially its great collective inquiry on influenza. The festival address was delivered by A. Fraenkel on "Modes of Dissemination of Pulmonary Tuberculosis from the Clinical Standpoint." A number of honorary and corresponding members were elected, among the former Quincke of Kiel, von Schrötter of Vienna, Maragliano of Genoa, Pel of Amsterdam and Kernig of St. Petersburg. The jubilee banquet was held a day or two later.

No Benefits from Compulsory Disinfection at Paris.—The *Semaine Méd.* for February 14 cites statistics showing the number of cases of various communicable diseases in Paris during the last decade. Notwithstanding the regulations for compulsory disinfection, the number of cases of diphtheria and of scarlet fever was as large in 1904 as in 1895 (respectively 4,327 and 3,279 in 1895 and 4,653 and 3,592 in 1903). The number of cases of smallpox increased from 542 in 1895 to 822 in 1904, and of typhoid fever from 1,389 to 2,635. The editorial states that statistics from other cities show a similar lack of any decline in the number of cases of communicable diseases since the enforcement of compulsory disinfection. The number of cases keeps about on the same level or is higher than before these measures were introduced. The editorial regards this as an argument against extending compulsory disinfection to tuberculosis as some are advocating.

Annual Meeting of the Medical Society of Victoria, Australia.—The annual meeting of this society was held in January. In his presidential address, Dr. A. Jeffreys Wood, Melbourne, reviewed at length the history of the society from the time it was organized to the present. He referred to the two methods whereby the medical profession of Australia might be effectively organized: The first suggestion is that a new association be created on the lines of the American Medical Association and called the Australasian Medical Association; the other is that all the medical societies throughout the commonwealth should become branches of the British Medical Association. Dr. Wood said that the necessity for organization in the profession is daily becoming more apparent. "The days are past when a medical man can stand aside from medical politics and pursue the even tenor of his way without detriment to himself or to his colleagues." He concluded his address by urging the benefits to be derived from affiliation with the British Medical Association.

Prize for Professor Bier.—The medical faculty of Heidelberg has awarded the Kussmaul prize to the professor of surgery at Bonn, August Bier, for his studies on artificially induced congestive hyperemia as a therapeutic measure. Bier is only 45 years old, but he has been preaching for years the advantages of measures to induce active or passive hyperemia in the treatment of various affections. His views were received with indifference at first, but have gradually gained more and more adherents until now they have become firmly established in current surgical and medical practice. Some go so far as to call this work the greatest achievement in surgery since the introduction of antisepsis. His latest application of the method of congestive hyperemia by interrupted circulation as a means of treating acute inflammations was regarded with amazement at first, but more and more testimony is constantly accumulating in its favor. All agree in the remarkable subsidence of the pain after the circulation has been interrupted by the tourniquet above the lesion. The Kussmaul prize was endowed not long ago by Czerny as a memorial to his father-in-law, Prof. Adolph Kussmaul. This is the first time it has been awarded. Bier's method of passive congestion is discussed editorially on page 726.

Organization of the Profession in Austria.—The physicians in lower Austria who have charge of the free vaccinations have protested for years against the remuneration allowed them by the state for this and similar official medical work. The veterinary surgeons receive 20 cents for each animal vaccinated against hog cholera, but the rate for vaccinating a human being is only 20 hellers, about equal to 5 cents. The fees allowed for other medical duties are proportionately small, and the physicians are now banding together to demand juster remuneration from the authorities. They say that they are "paid less for a careful medical examination of a lousy tramp than the barber gets for cutting the vagrant's hair." The spirit of organization is spreading and the medical societies are standing by their colleagues in the opening strife. The physicians are opposing what they call "passive resistance" to the authorities, reporting every case in which there is a suspicion of infectious disease as "suspicious of scarlet fever," or "of diphtheria" or "smallpox." More than 10,000 cases had thus been reported as "suspicious" during the first week, overwhelming the district health officers whose duty it is to examine each suspicious case. Hitherto they have been notified only when the practitioner was measurably sure of a definite diagnosis.

Recent Decisions of the German Medical Court of Honor.—The three latest decisions deal with questions affecting the organized action of the members of the profession in respect to contract practice. One physician was fined by the local court of honor because he had accepted a position with the local sickness insurance society at a 3-mark rate when all the medical officers of the society (Krankenkasse) had resigned in a body because the society had refused to increase their remuneration to a 3.5-mark rate. Appeal to the supreme court of honor resulted in the acquittal of the physician, as it was held that his acceptance of a position with the society after the medical officers had all resigned did not bring him within the jurisdiction of the court of honor, especially as the rate accepted was not ignominiously low. In another case a physician accepted a position with the sickness insurance society when the members of the local medical chamber had voted that none of its members should accept such a position until the company agreed to certain conditions. The physician was condemned for this conduct by the court of honor, but as the local medical chamber was very loosely organized and as he had not been informed in regard to the result of its deliberations he was dismissed with merely censure. In another case eleven physicians voted in the minority in their local medical chamber (Aerztekammer) against certain conditions to be demanded of the insurance company ("free choice by the patient of his physician"). Being outvoted, they withdrew from the medical chamber and accepted the company's terms. The court of honor dismissed the suit against them.

LONDON LETTER.

The Problem of Milk Supply.

Dr. A. C. Houston has presented an important report on his bacteriologic examination of milk to the London County Council. It has been computed that in the United Kingdom in 1901 there were 4,102,000 milch cows and that the total yield of milk per annum was 1,722,840,000 gallons. It has been suggested that 20 per cent. of the milch cows are tuberculous and that 2 per cent. suffer from tuberculosis of the udder. Under existing conditions the opportunities of milk becoming contaminated both during and after milking are numerous. The cow may be coated with filth, the milk may be dirty, the milk utensils may be unclean and the air of the byre may be loaded with excrementally polluted dust. There are fresh opportunities for the ingress of filth during the transit of the milk and on the premises of the dairy shops and milk purveyors. Dr. Houston observes that bacteriologic testings can do little more than show whether such remedial measures as may from time to time be suggested or demanded have been taken. The actual

disease-producing power of milk can not be measured by the bacteriologist. He can hardly even say, unless bacteria are almost absent, that a particular sample of milk is devoid of power to cause disease. He can measure the amount of filth in milk, however, and determine its biologic qualities. Bacteriologic tests and standards are not, strictly speaking, preventive measures, but as they may be the means of forcing milk dealers to carry out suggested reforms they are indirectly remedial measures. Dr. Houston suggests the enforcement of the following conditions: Cows should be kept clean and housed in well-ventilated, clean byres. The milker should be cleanly in his person and in his methods of procedure. The first milk should be rejected. All milk utensils should be kept scrupulously clean. The milk should be strained through a clean strainer. The conditions under which milk churns are conveyed from place to place and milk is carried to the consumers' premises should be greatly improved. Dairy and milk purveyors' shops should be kept clean. All persons engaged in handling milk should pay special regard to the importance of personal cleanliness. Far greater precautions than exist should be taken to exclude dust, flies, etc. The water used for washing dairy utensils should be potable water. On the question of personal cleanliness Dr. Houston says that no person who has contracted typhoid fever is fit to handle milk, even if long convalescent, in the absence of medical supervision. The danger of typhoid bacilluria must not be forgotten. Recently an epidemic of scarlet fever was traced to a man in the late stages of an attack of that disease who was employed to milk cows.

The Prevention of Consumption.

Sir William Broadbent has addressed an important memorial to the Metropolitan Asylums Board on the prevention of consumption. He points out that the International Congress on Tuberculosis held in Paris brought into prominence the importance of the prevention of consumption from a social point of view. He urges the board (which now controls all the fever hospitals of the metropolis), to constitute itself the tuberculosis authority. The first step would then be to ascertain the number and distribution of the cases of consumption in the metropolis, and the stage of the disease, with the circumstances and surroundings of the sufferer. This would be effected by a system of notification. The notification would be followed in the case of the poor by the visit first, it is hoped, of some member of a woman's association, such as in Manchester has been found to remove all objections on the part of the families; next, of a sanitary inspector, who would carry out the necessary disinfection. Thus advanced cases, from which the dissemination of the disease mostly takes place, would be identified and surrounded by protective and preventive measures. The destruction of the sputum would be secured, the importance of open bedroom windows would be inculcated and the removal of dust by damp cloths instead of dusting and sweeping would be taught. In a large proportion of the cases these measures would be sufficient to diminish the dangers of dissemination so that the patient might be treated at home. He would be surrounded with more comfort and would have a better chance of recovery. The periodical visits of women visitors and inspectors would insure the carrying out of the precautions. In advanced cases the patients should be removed to some home, thus removing a source of disease and diminishing the privations of the family, conducive to disease. No expenditures on buildings would be required if some of the hospitals provided for smallpox or other fevers, now unoccupied, are made available. In an important paper read before the Paris congress, Dr. Newsholme, health officer of Brighton, showed that the greater diminution in the death rate from consumption in this country as compared with Ireland and France, and with Germany before the establishment of numerous sanatoria in that country, has been due not merely to improved social conditions, but largely to the reception of advanced cases into the infirmaries and their removal as centers of infection.

Cremation in Great Britain.

In the past year there has been no marked progress in the use of cremation as a means of disposing of the dead. The total number of cremations was 600, as against 566 in 1904 and 475 in 1903. In the erection of crematories, however, distinct progress has been made; in 1904 there were only nine, while in 1905 there were twelve. The total number of cremations performed in Great Britain since the first crematorium was established at Woking in 1885 is 5,018. During 1905 crematories have been opened at Leeds and Bradford. A third is in process of construction at Sheffield. Thus though the progress of cremation is slow in regard to numbers, the area of operation is gradually extending.

Pharmacology

A Phosphorized Cerebro-Spinant.

FALL RIVER, MASS., Feb. 22, 1906.

To the Editor:—Among the proprietary medicines offered to physicians is one called Freligh's Tonic and bearing the striking sub-title of "A Phosphorized Cerebro-Spinant," the formula of which is: Cinchona, nux, ignatia, matricarin, free phosphorus, C. P. No quantities whatever are given, but its indications are "paralysis, vertigo, epilepsy, Bright's disease (early stages), neurasthenia, debility, debilitating losses, mental failure, spinal weakness, nervous dyspepsia, all troubles affecting the brain, nerve centers and spinal cord, and as a safe and powerful aphrodisiac."

The literature which accompanies it is very striking, and if the firm who get it up are no more familiar with the action of drugs than they are with the meaning of the words which they use to describe its action, I think the profession at large had better make their own combinations of these remedies rather than trust to one which is offered to them at the price of $1 per ounce. After describing how the remedy is combined in such a way that a dose of from 5 to 10 drops in half a glass of water is all that is needed to produce the desired effect and secure beneficial results at once, the descriptive circular says:

> "Those familiar with the action of drugs know the homogeneous relations they bear to each other, how their pathogenetic and curative spheres are enlarged and dynamitized by a judicious combination, extending their spheres of usefulness, and governing numerous indications. For such, but a short acquaintance with the Tonic is necessary to convince them that its remedial power and scope far exceed those of any or all the remedies it contains, when used singly."
>
> "A very *causal* reference to the pathogenetic and curative action of the Tonic will show how completely all of these symptoms and diseases come within the preventive and its curative sphere, together with that voluminous class connected with indigestion and a want of proper assimilation."

It strikes me that the words "pathogenetic" and "curative" hardly go together in the same sentence, descriptive of the same remedy, unless one is considering both the poisonous and the therapeutic action of a drug, and then the dose would necessarily be different. I personally have no use for any tonic which is pathogenetic, and I hope no member of the profession has.

Further on in the same circular, under the heading of "Dyspepsia," it states that "the formula of the tonic shows how the pathogenetic and curative action of its several constituents meets the exigencies of any phase of indigestion." I take it that the pathogenetic action of the tonic is so great that the disease which it produces causes its owner so much trouble that he forgets entirely the dyspepsia, and so in this way the dyspepsia is cured. It seems to be possible with this remedy to cure all cases of indigestion, functional disorders of the brain, threatened softening, progressive locomotor ataxia and general paralysis, but it is still more brilliant in those cases developed by the advancement of age. For these conditions it comes nearer being the fountain of youth for which Ponce de Leon sought two or three centuries ago than anything which has yet been brought to the attention of the human mind.

The circular closes with the statement:

> "The wide range of the curative sphere of this article is truly remarkable. For while it is not a catholicon, nor is it pretended to be, it covers more symptoms and is curative to more diseases of an alarming character than any other one remedy or combination of remedies, within the limits of our materia medica, or books of medicinal formulæ."

It is stated at the beginning of the circular that this is sent solely to the profession, so it must be assumed that the profession is using this remarkable medicine. With two or three such medicines in his grip, a physician should be entirely independent of the Pharmacopeia, the National Formulary and all the old standbys.

GEORGE L. RICHARDS.

A Letter, a Reply, and Comments.

[THE LETTER.]

JOSEPH MCDONALD, JR., M.D.

EAST ORANGE, N. J., Feb. 16, 1906.

Dr. J. A. Pettit, Portland, Ore.

Dear Dr. Pettit:—I have read your article in the last issue [Feb. 17] of THE JOURNAL A. M. A. on "The Evils of Proprietary Medicine," and I can not refrain from expressing to you my sentiments.

This tirade against nostrums and proprietaries is, in my estimation, insulting to the medical profession. The doctors of America are as a body an intelligent class and quite able to decide which is and which is not a suitable remedy to be administered to their patients. It must be left to the individual opinion of the physician prescribing whether the product is or is not a nostrum, for this reason that what might appeal to one as a legitimate proprietary article, to another would seem a rank nostrum.

Now eliminating every proprietary or so-called proprietary remedy from our list of useful remedies, would mean that we must give up those remedies manufactured by legitimate houses, these same products conforming to the prescribed rules in the Pharmacopeia, the same should be compounded by the druggists. You must not forget, doctor, that the large manufacturing chemists make it an aim to purchase the best crude drugs that the market produces, while the druggist is supplied by his wholesaler to whom he is many times subsidized. As a consequence cheap and inert drugs are furnished and compounded. Inasmuch as you have committed yourself on the proprietary question, I would suggest that you take a broader view of the situation. From your article I should say that you read only THE JOURNAL of the A. M. A., as you refer in your comments to the advertisement of Kutnow's powder and their method of introducing their goods in Europe as well as to rehash attacks made on other manufacturers.

If you had been well posted on this situation you would have known (I refer now to Kutnow) that other manufacturing chemists are doing identically the same thing, and these chemists are considered ethical from the standpoint of THE JOURNAL of the A. M. A.

I would call your especial attention in this respect to Angier's Petroleum Emulsion, which advertises most extensively to the public in Europe and I believe carried an advertisement in the same publication from which the advertisement of Kutnow's Powder was reproduced.

I take the liberty of enclosing herewith a few pages of a little magazine [1] that occasionally comes to my office, showing that Angier's Emulsion, which carries an advertisement in THE JOURNAL A. M. A., and is considered ethical, nevertheless advertises to the laity in Europe.

My letter to you, doctor, is not in defense of Kutnow's Powder or any other article or product. It is merely a suggestion that you view the situation from a non-biased standpoint and also consider that the profession of America as a body are intelligent men, and you are more liable than otherwise to offend the doctor by preaching to him of his presumed incompetency than you are to convert him to your way of thinking.

J. MCDONALD, JR.

[THE REPLY.]

PORTLAND, ORE., Feb. 28, 1906.

Dr. Joseph McDonald, Jr., East Orange, N. J.

Dear Sir:—I am in receipt of your letter of the 16th inst. in criticism of my article in THE JOURNAL A. M. A. of February 10, terming it a tirade, etc., against nostrums and proprietary preparations (which you seem to uphold as benefactors of a medical profession) and an insult to the medical profession.

In reply, I would beg to directly contradict your nomenclature. That which you term a "tirade" is simply a plain statement of plain facts, and that which you term an insult to the medical profession is regarded by all the medical profession who have talked with me or written me, in the words of the countryman, "them's my sentiments." To understand the motives which actuate your adverse criticism, I would have first to know that of which I am now ignorant, viz., your possible professional and commercial alliances and interests [2]. If you have any heart or money interests in products sold to our profession, a discussion of the merits of this matter would be futile, because by reason of those circumstances you would not be open to conviction. I certainly should not try to convert to a gold standard an advocate of silver currency who is possibly interested in silver mines.

I have read the magazine from which you enclose clippings. If there is a biased and one-sided magazine in this country, you can find it under that title. You accuse me of confining my reading to THE JOURNAL A. M. A.; and I believe I may justly accuse you of confining your reading matter to the small sheets of this narrow-minded paper you enclose to me; and I think that all will agree that my choice of reading matter is a far better selection than yours. The journals which come to my desk are carefully selected for their scientific character and not for their commercial prominence.

You conclude by saying you are not defending Kutnow's Powder or any other article, but the general construction of your letter influences me to state in reply that I can not help feeling you are defending "something." I will not try to convert you, doctor, because I am afraid I can't.

J. A. PETTIT.

[THE COMMENTS.]

[1. The "little magazine" referred to is the *American Medical Journalist*, November, 1905, issue. This publication is owned or managed by Mr. D. A. O'Gorman. Mr. D. A. O'Gorman owns or manages the O'Gorman Agency. The O'Gorman Agency handles the advertising accounts of the Lawrence (*Medical Brief*) interests. At least a good part of the following preparations are numbered among them: Echthol, Bromidia, Neurilla, Sanmetto, Cactina, Seng, Chionia, Peacock's Bromides, Celerina, Iodia, Papine, Pil Hemorrhoidica, etc. The "little magazine" seems to be the official organ of those interests that are not in accord with the present movement against nostrums by the American Medical Association. The advertisement of Angier's Emulsion was refused further space in THE JOURNAL for reasons that it is not necessary to give in this connection, and ceased to appear after Nov. 4, 1905, issue. It is interesting to note that while the *American Medical Journalist* for November, 1905, directed attention to the fact that this preparation was being advertised to the laity abroad, this particular issue was not published until February, 1906—three months after the advertisement ceased to appear in the advertising pages of THE JOURNAL.—ED.]

[2. Joseph Macdonald, Jr., M.D., graduated from the Baltimore University School of Medicine in 1904. To the best of our knowledge he has never practiced medicine. Previous to April, 1905, he was manager of the *International Journal of Surgery*. Since that date he has purchased the *American Journal of Surgery* (formerly the *American Journal of Surgery and Gynecology*, owned and edited by Dr. Emory Lanphear), of which he is at present the managing editor and owner or part owner. A casual glance through the advertising pages of the *American Journal of Surgery* will readily indicate where Dr. Macdonald's vested interests lie.—ED.]

Formula of Ayer's Cherry Pectoral.

LOWELL, MASS., Feb. 19, 1906.

To the Editor:—On page 446 of THE JOURNAL, February 10, is a note from Dr. Frank L. Smith, of Stafford Springs, Conn., which is likely to call discredit on this house, and yet which we are confident Dr. Smith would never have written had he been acquainted with the facts in the case.

For about sixty years Ayer's Cherry Pectoral was made according to the original formula of Dr. J. C. Ayer, which is here correctly given by Dr. Smith. But about one year ago we decided to publish the formulæ of our medicines, hence we took advantage of this fact to change these formulæ. The formula we adopted for Ayer's Cherry Pectoral was that recently given in THE JOURNAL. The old preparation was called Ayer's Cherry Pectoral. The new preparation is known as Ayer's Cherry Pectoral (Revised Formula). The formula of the old preparation was never printed on the label. Every bottle of Ayer's

Cherry Pectoral that has left this establishment for nearly a year has had the new formula printed as a part of the label.

Therefore it is true that there are two kinds of Ayer's Cherry Pectoral on the market: the old kind formula, of which Dr. Smith gives on page 446, and the new kind, containing the terpin hydrate and heroin, as recently given in THE JOURNAL. We presume it will be many years before all of the old Cherry Pectoral will be entirely off the market.

CHARLES H. STOWELL, M.D.,
Treasurer and General Manager, J. C. Ayer Company.

Proposed Canadian Legislation on Patent Medicines Indorsed.

The Vancouver Medical Association met February 13 and indorsed the bill now before the legislature of British Columbia for the regulation of the sale of patent medicines. The society will also ask the medical council to notify the physicians of the province regarding proprietary medicines said to be equally fraudulent. The department on island revenue at Ottawa has issued a bulletin regarding the analysis of certain patent medicines at present on the Canadian market.

Medical Legislation

The Opportunity for the Pure Food Bill.

The Pure Food Bill is now in the House of Representatives, having passed the Senate. It, therefore, stands a good chance of becoming a law, provided sufficient interest is taken by the public and by the profession to offset that brought to bear by the organizations that are opposing the measure, for all that these organizations can now do is simply to influence congressmen through public opinion. Their arguments are worn threadbare; money will not count. Consequently, their only method will be to influence congressmen through individuals, such as the druggists, who are appealed to by the "patent-medicine" men in the following letter. There is a clause in the bill, as passed by the Senate, to regulate "patent medicines," but it practically amounts to a joke. We understand, however, that the joke has been taken in dead earnest by the committee to which the bill was referred in the house, and will be modified so as to be effective for some good in preventing fraud in proprietary medicines. This is what is referred to in the following letter, written by the chairman of the committe on legislation of the Proprietary Association of America and cautiously sent where it is expected to do good. This letter shows that the "patent-medicine" men realize what is going on and are acting accordingly. We do hope that every reader of THE JOURNAL will do his best and take the hint from the Proprietary Association and write to his congressman to support the Hepburn bill. While there is no particular hurry about doing this now, it is well to bear the matter in mind and act as soon as the committee reports the measure.

THE PROPRIETARY ASSOCIATION OF AMERICA.
COMMITTEE ON LEGISLATION.

CHICAGO, March 1, 1906.

Gentlemen:—The situation at Washington has taken a decided turn and Mr. Douglass, who is there, wires that the situation is serious, and that there is a possibility that a provision for the publication of the formula on proprietary medicines for interstate commerce will be added to the Pure Food Bill by the House committee.

Mr. Douglass wires also that the *Ladies' Home Journal* Bill may be introduced in the House, for the District of Columbia, and that it is indorsed by the district officials on recommendation of the health officer.

Every influence you can bring to bear on your congressman should be brought at once. There should be no let up to your endeavor until the Pure Food and the District of Columbia bills are disposed of satisfactorily. You will readily realize the importance of prompt action.

Take these matters up with your congressman by wire, and have every druggist possible wire his congressman to oppose the passage of formula legislation, either for the District of Columbia, or as an amendment to the Pure Food Bill.

We will endeavor to keep you posted regarding developments and suggest that you keep in touch, from your end, with this office. It is important that telegrams be sent to members of congress by druggists and others interested. Yours very truly,

JOHN W. KENNEDY, Chairman.

Address—Room 1107, No. 184 La Salle Street.

The Vote on the Pure Food and Drug Bill.

The American Medical Association has been active in its support of the Heyburn pure food and drug bill which passed the United States Senate February 21. The agitation in behalf of this measure has had no more influential support than that which was derived from the petitions sent from practically every county in the United States, signed very generally by the medical profession of each county, urgently requesting senators and members of the House of Representatives to support the measure.

Now that it has passed the senate by a splendid vote of 63 to 4, it devolves on every medical man in the United States—particularly on every one who has signed a petition or sent a letter to Congress in this behalf—to write each senator who voted for the measure and thank him for his attitude on this question.

It is only by expressed appreciation of favors asked for that other favors may be secured in the future. The vote was as follows:

YEAS—63.

Alger.	Depew.	Heyburn.	Overman.
Allee.	Dick.	Kittredge.	Patterson.
Ankeny.	Dillingham.	Knox.	Penrose.
Beveridge.	Dolliver.	La Follette.	Perkins.
Blackburn.	Dryden.	Lodge.	Piles.
Brandegee.	Dubois.	Long.	Platt.
Bulkeley.	Flint.	McCreary.	Rayner.
Burkett.	Foraker.	McCumber.	Scott.
Burnham.	Frye.	McEnery.	Simmons.
Burrows.	Fulton.	McLaurin.	Smoot.
Carter.	Gallinger.	Martin.	Stone.
Clapp.	Gamble.	Millard.	Sutherland.
Clark (Mont.).	Gearin.	Money.	Tallaferro.
Clark (Wyo.).	Hale.	Nelson.	Warren.
Clay.	Hansbrough.	Newlands.	Wetmore.
Daniel.	Heminway.	Nixon.	

NAYS—4.

Bacon.	Bailey.	Foster.	Tillman.

NOT VOTING—22.

Aldrich.	Crane.	Hopkins.	Proctor.
Allison.	Culberson.	Kean.	Spooner.
Berry.	Cullom.	Latimer.	Teller.
Burton.	Elkins.	Mallory.	Warner.
Carmack.	Frazier.	Morgan.	
Clark (Ark.)	Gorman.	Pettus.	

Help the Pure Food Bill to Pass.

ASHLAND, NEB., March 5, 1906.

To the Editor:—In my capacity as chairman of the committee an pure foods and pure drugs of the National Legislative Council of the American Medical Association I appeal to the members of this council, resident in the different states of the country, to lose no time in urging on the county medical societies with whom their members of the house of representatives live, to send at once to each one of them resolutions, both strong and unequivocal, demanding respectful attention to the wishes of their constituents for the passage of the Heyburn bill, with the amendments of the senate non-concurred in, or for the passage of the Hepburn bill, which is identical with the Heyburn bill in spirit before the amendments were attached to it by the senate. Urge on the representatives that this measure has become a crying need and that the people intensely feel it, especially when they ask so little in the bills, namely: "Label correctly what you put up and leave to us, the people, the choice of buying your products!"

I trust the members of my committee, as well as the members of the council from the different states, will pardon me and THE JOURNAL if any or all of the county societies should act at once on this appeal, even if they do not first receive *their* invitation to do so. Time is short and every word of warning not to go to sleep, urged by THE JOURNAL, is only too appropriate, in the face of the activities displayed by those who, for the sake of gain, care very little whom they injure or what they destroy. Nebraska has already commenced to apprise its congressmen of its wishes. These men are wide-awake and know

that their people are in dead earnest in this matter; in fact, they themselves feel the need of this legislation for their own families; they will need little urging, and I sincerely believe this will prove true of an overwhelming majority of the members of the house of representatives. A. S. V. MANSFELDE.

New Jersey Ready to Work.

Dr. L. M. Halsey, Williamstown, N. J., member of the National Legislative Council for New Jersey, has completed the organization of the National Auxiliary Legislative Committee for that state. Dr. Halsey called for a meeting of the Committee on Legislation of the State of New Jersey at Trenton, March 6, to take action on the anti-nostrum bill now pending in their state legislature, based on the act published in the February number of the *Ladies' Home Journal.*

Association News

Headquarters for Section on Practice of Medicine.

We are asked to announce that the Hotel Somerset has been selected as the headquarters for the Section on Practice of Medicine for the Boston session. It is suggested that there will be a better chance for acquaintanceship if as many members of the section as find it convenient to do so will register at that hotel.

NEW MEMBERS.

List of new members of the American Medical Association for the month of February, 1906:

ALABAMA.

Alexander, J. F., Blocton.
Black, O. E., Wilsonville.
Brown, J. T., Riverside.
Baldridge, F. E., Huntsville.
Burns, R. A., Alabama City.
Burdeshaw, L. R., Headland.
Boggess, J. W., Woodville.
Brown, J. M., Gadsden.
Blue, J. H., Montgomery.
Crutcher, J. S., Athens.
Deweese, T. P., Gamblemines.
Duff, W. S., Ft Payne.
Duckett, L. F., Florence.
Faucett, G. L., Gadsden.
Hagood, M. H., Mt. Willing.
Hall, B. M., Huntsville.
Harris, E. A., Coal City.
Henry, T. H., Tuscumbia.
Hagan, W. J., Athens.
Lee, E. F., Consul.
Laney, M. W., Eden.
Moore, J. C., Anniston.
Maples, W. C., Scottsboro.
Northen, C. S., Talladega.
Palmer, C. R., Tuscumbia.
Robinson, T. F., Bessemer.
Semmes, R. O., Camden.
Simms, B. B., Talladega.
Stringer, W. L., Falkville.
Woodson, J. L., Coal Valley.
Warwick, B. B., Talladega.
Williamson, E. O., Gurley.
White, W. Y., Anniston.

ARIZONA.

Levengood, H. W., Helvetia.

ARKANSAS.

Blackwell, O. G., Pine Bluff.
Blackburn, E. W., Ozark.
Blakemore, J. E., Van Buren.
Campbell, J. M., Russellville.
Ellsworth, E. H., Hot Springs.
Foster, J. H., Ft. Smith.
Houston, A. L., Clarendon.
Harris, A. E., Little Rock.
Jones, Erner, Sommerville.
John, J. W., Pine Bluff.
Judd, O. K., Little Rock.
Lucas, Giles, Van Buren.
Presley, W. L., Morrillton.
Thorne, E. C., Little Rock.
Vaughan, M., Little Rock.

CALIFORNIA.

Barton, H. P., Los Angeles.
Botsford, Mary E., San Francisco.
Bucknall, G. J., San Francisco.
Bromley, R. I., Sonora.
Brown, T. F., Los Angeles.
Claypole, E. J., Pasadena.
Chipman, E. D., San Francisco.
Couey, E. J., Fresno.
Chadbourne, E. R., Pasadena.
Dozier, Barton, Los Angeles.
Draper, A. L., San Francisco.
Evans, J. H., Highland.
Ellis, T. E., Elsinore.
Fasig, H. B., Los Angeles.
Fay, F. G., Sacramento.
Graham, J. W., Lompoc.
Hyman, Solomon, San Francisco.
Hay, E. O., Los Angeles.
Jennings, G. D., Covina.
Mosely, G. G., Redlands.
Moss, J. M., San Francisco.
Makinson, H. A., Oakland.
Poore, J. E., Sacramento.
Pritchard, F. H., Colton.
Pitcher, Josephine, Halfmoon Bay.
Peoples, S. Z., Petaluma.
Read, W. P., San Francisco.
Silverburg, Melville, San Francisco.
Taylor, A. W., Santa Barbara.
Van Slyck, D. B., Pasadena.
Wagner, John, San Francisco.
Wrenn, J. Q., Placerville.

COLORADO.

Bootay, F. S., Akron.
Gillaspie, Carbon, Nederland.
Jackson, F. A., Salida.
Loomis, P. A., Colorado Springs.
Porter, V. W., Lafayette.
Russell, J. A., Boulder.

CONNECTICUT.

Lemmar, G. E., Danbury.
Wheatley, L. F., Meriden.
Winne, W. N., New Haven.

DELAWARE.

Marshall, Wm., Jr., Wilmington.
Wertenbaker, Wm., New Castle.

DISTRICT OF COLUMBIA.

Dunnigan, J. P., Washiugton.
Greene, S. H., Jr., Washington.
Harding, G. T., Jr., Washington.
LeMerle, E. L., Washington.

GEORGIA.

Cole, J. E., Middleton.
Strickland, J. O., Pembroke.
Traylor, G. A., Augusta

IDAHO

Campbell, B. F., Rexburg.
Mitchell, F. W., Blackfoot.
Story, R. T., Albion.

ILLINOIS.

Bryant, J. H., Galesburg.
Brill, J. A., Chicago.
Buchanan, W. A., Paris.
Bradley, R. H., Marshall.
Becker, H. F., Danville.
Coggshall, T. C., Henry.
Cruse, C. V., Iola.
Culbertson, S. D., Piper City.
Dowdall, W. T., Jr., Peoria.
Dwight, F. A., Chicago.
Eddy, I. H., Chicago.
Epperson, J. C., Kansas.
Friedman, J. C., Chicago.
Granay, T. L., Irvington.
Gaffner, Theophilus, Trenton.
Heflin, H. N., Kewanee.
Holleman, P. W., Chicago.
Hummell, R. O., Joliet.
Hayman, L. B., Chicago.
Kaiser, J. M., Somonauk.
Kimball, Z. V., Hillsboro.
Lehman, S. W., Dixon.
Lang, H. W., Chicago.
Law, E. F., Weston.
Lyons, Jennie, Champaign.
Lowery, J. E., Homer.
Lamborn, W. H., Chicago.
Milaik, H. B., Kewanee.
McCaughey, R. S., Hoopeston.
McGonagle, T. C., Chicago.
Ochsner, E. H., Chicago.
Pietrzykowski, A., Chicago.
Pearce, Edward, Marshall.
Powell, G. P., Dixon.
Renn, T. H., Chicago.
Roane, J. Q., Boulder.
Spangenberg, W. C., Chicago.
Ulrich, J. H., Peoria.
White, J. V., Auburn.
Woltman, H. C., Jacksonville.
Waterous, H. W., Galva.
Werth, S. S., Oak Park.

INDIANA.

Burlington, J. R., Attica.
Blery, T. E., Scottsburg.
Costello, H. F., Decatur.
Clark, J. H., Princeton.
Campbell, W. S., Lafayette.
Dubois, E. J., Indianapolis.
Elliott, J. M., Linden.
Hammond, G. B., English.
Howard, N. P., Greenfield.
Kendle, G. C., Princeton.
Lawson, J. E., Corydon.
Leavitt, R. H., Terre Haute.
Langdon, H. K., Indianapolis.
Lowder, H. R., Bloomfield.
Modricker, J. M., Wabash.
McLeay, J. D., Indianapolis.
Swartzel, J. A., Indianapolis.
Stone, Chas. E., Windom.
Stemm, W. H., North Vernon.
Thompson, W. H., Winamac.
Van Pelt, R. T., South Bend.
William, G. T., Crawfordsville.

IOWA.

Bradford, D. S., Janesville.
Balliett, M. R., Waterloo.
Brown, C. T., Waverly.
Beaver, C. V., Anita.
Branson, W. S., Irwin.
Bowen, A. S., Valeria.
Chenoweth, C. B., Newhall.
Childress, M., Oskaloosa.
Casady, S. A., Cantril.
Carton, A. R., Britt.
Conaway, A. B., Marshalltown.
Corrigan, W. H., Rockwell.
Davenport, F. D., Winterset.
Dietz, C. F., Carson.
Fordyce, W., Fairfield.
Groom, W. S., Britt.
Hanske, E. A., Bellevue.
Jarvis, F. J., Delta.
Jay, E. W., Marshalltown.
Jones, L. H., Wall Lake.
Kaadt, P. S., Clinton.
Lee, W. A., Bellevue.
Murphy, F. G., Mason City.
McCarthy, J. F., Dubuque.
Nichols, H. H., Marshalltown.
Nesbitt, G. M., Waterloo.
Pinkerton, J. A., Traer.
Ridenour, J. E., Waterloo.
Schooley, A. H., Terril.
Sleeper, L. E., Ottumwa.
Scholten, D. J., Alton.
Thompson, W. L., Bayard.
Wagner, G. A., Van Horne.
Wolfe, C. E., Coon Rapids.
Wuesthoff, S. W., Lake Park.
Young, R. M., Red Oak.

KANSAS.

Aitken, W. A., Valley Falls.
Anderson, E. E., Garland.
Bredehoft, J. C., Ford.
Conaway, C. L., Cottonwood Falls.
Dougherty, J. L., Hiattville.
England, G. W., Valley Falls.
Fullenwider, C. M., El Dorado.
Hassig, J. F., Kansas City.
Haury, S. S., Newton.
Haggard, D. D., Phillipsburg.
Howe, P. L., Great Bend.
Moore, G. W., Gas.
Palmer, E. M., Wichita.
Pile, Eugene, Portland.
Scholle, F. H., Topeka.
Roff, O. W., Newton.
Tooley, G. E., Washington.
Vestling, V. I., Marquette.
Wagar, L. S., Florence.

KENTUCKY.

Anderson, W. W., Newport.
Anderson, J. R., Owensboro.
Almon, E. T., Madisonville.
Bennett, La Fayette, Central City.
Brothers, C. H., Paducah.
Baxter, A. A., Guston.
Barnett, Nestor, Caneyville.
Blane, H., Cadiz.
Bugg, T. D., Bardwell.
Boxley, H. M., Kirksville.
Campbell, D. A., Bowling Green.
Cole, L. L., Millerstown.
Cox, L. T., Owensboro.
Davis, A. W., Mortons Gap.
Douglas, J. C., Franklin.
Gibson, J. J., Lexington.
Gourley, W. W., Fulton.
Griffith, B. B., Paducah.
Graham, Cyrus, Henderson.
Hoyer, F. A., Paducah.
Hubbard, J. M., Hickman.
Kincheloe, A. M., Hardinsburg.
Kehm, C. J., Newport.
Melton, H. R., Twickliffe.
Messink, W. B., Worthville.
Mutters, J. D., Rush.
O'Bannon, W. B., Stanford.
Overbey, Bob C., Birmingham.
Pierce, H. S., Salt Lick.
Pennington, H. V., London.
Pollard, C. J., Princeton.
Price, W. M., Dabney.
Purdy, Geo., New Liberty.
Risen, W. J., Summersville.
Rouse, Wm. O., Burlington.
Rogers, C. W., Rineyville.
Rutherford, B. S., Bowling Green.
Sanders, H. G., Campbellsville.
Steele, J. R., Junction City.
Smith, J. I., London.
Tarvin, W. W., Covington.
Tyler, B. D., Hadensville.
Van Deren, J. H., Cynthiana.
Wolfe, De W. H., Louisville.
White, J. G., Cerulean Springs.
Warren, I. S., Somerset.
Wilkerson, W. C., Little Rock.
Willis, Le Roy, Kleaton.

LOUISIANA.

Aldrich, R. H., Baton Rouge.
Babin, A. J., New Orleans.
Biscoe, A. H., Alexandria.
Donaldson, L. T., Reserve.
Eldredge, H. A., Abbeville.
Gaudet, C. A., New Orleans.
Hargrove, J. B., Natchitoches.
Holloway, Eugene, Plaquemine.
LeBlanc, B. O., St. Gabriel.
Lemoine, J. D., Cottonport.
Lazaro, L., Washington.
Norman, Seaton, New Orleans.
Rand, I. T., New Iberia.
Reynaud, B. B., Baton Rouge.
Scott, S. M., Oakdale.
Thomas, J. N., Quarantine.
Tusson, G. J., New Orleans.
Villien, J. A., Maurice.

MAINE.

Bennett, J. L., Bridgton.
Bibber, R. D., Bath.
Barrell, D. A., Auburn.
Bray, C. W., Portland.
Porter, E. A., Pittsfield.

MARYLAND.

Benson, B. R., Cockeysville.
Cook, C. M., Baltimore.
Conser, C. C., Baltimore.
Duvall, J. M., Springfield.
Dill, P. G., Baltimore.
Gately, J. E., Baltimore.
Hobelmann, F. W., Baltimore.
Lewis, J. L., Bethesda.
McElfresh, C. M., Baltimore.
MacCalman, Duncan, Baltimore.
Rohrer, C. W. G., Baltimore.
Speake, S. H., Grayton.
Tweedle, H. V., Baltimore.

MASSACHUSETTS.

Adams, W. C., East Taunton.
Adams, Z. B., Boston.
Allen, C. A., Holyoke.
Baird, J. W., Boston.
Birge, W. S., Provincetown.
Blair, O. C., Lynn.
Brown, D. R., Salem.
Boutwell, H. K., Boston.
Barnes, H. J., Boston.
Bicknell, R. E., Swampscott.
Byrnes, H. F., Westfield.
Bailey, W. C., Boston.
Brayton, R. W., Dorchester.
Bowditch, H. I., Boston.
Burt, F. L., Boston.
Bryant, Alice G., Boston.
Calkin, B. H., Jamaica Plain.
Cooper, Hermon, Amesbury.
Davenport, B. F., Watertown.
Drohan, J. H., Brockton.
Dunning, E. J., South Boston.

Evans, Albert, Boston.
Ewing, G. W., Peabody.
Eldridge, D. G., Dorchester.
Fillebrown, Thos., Boston.
Flanagan, A. J., Springfield.
Gay, C. B., Fitchburg.
Gillis, J. E., Boston.
Hewitt, W. O., Attleboro.
Hill, I. C., Springfield.
Holmes, H. F., Tewksbury.
Harper, A. A., North Adams.
Hoyt, W. S., Waltham.
Hanley, F. J., Whitman.
Howell, Thos., Worcester.
Jack, L. H., West Newton.
Jennings, C. H., Fitchburg.
Kinloch, R. A., Springfield.
Kirby, H. C., New Bedford.
Libby, J. H., East Weymouth.
Loring, R. G., Boston.
Lyon, F. D., Boston.
Lowenstein, F. P., Westfield.
Lowell, A. P., Fitchburg.
Little, A. N., Newburyport.
Mansfield, J. A., Boston.
MacKillop, Daniel, Cambridge.
Morris, M. A., Boston.
MacKeen, A. A., Whitman.
Morris, G. P., South Boston.
Mason, N. R., Boston.
MacDermott, W. V., Salem.
Marsh, A. W., Worcester.
Ordway, Thos., Cambridge.
Pillsbury, W. W., Newburyport.
Patch, W. T., Roxbury.
Peirce, G. A., Tewksbury.
Pattrell, A. E., North Grafton.
Plummer, F. J., Malden.
Perry, A. P., Jamaica Plain.
Quessy, A. H., Fitchburg.
Richardson, W. L., Boston.
Richmond, E. D., Reading.
Stedman, H. R., Brookline.
Savage, G. E., Worcester.
Smith, M. C., Lynn.
Stone, C. S., Boston.
Seelye, W. C., Worcester.
Smith, H. B., Boston.
Sedgwick, O. W., Wales.
Tilton, J. O., Lexington.
Thornton, J. B., Boston.
Vincent, Beth., Boston.
Warren, C. E., North Easton.
White, H. W., Boston.
Warren, F. L., Bridgewater.
Watkins, R. P., Worcester.
Wheeler, C. D., Worcester.
Wald, R. H., Boston.
Wilinsky, C. F., Boston.

MICHIGAN.

Abbott, A. J., Albion.
Brush, B. E., Croswell.
Clippinger, H. G., Eau Claire.
Cowan, A. L., Detroit.
Coller, F. S., Vicksburg.
Flinterman, Johann, Detroit.
Fletcher, John, Kalamazoo.
Gesner, G. B., Marshall.
Hawthorn, S. R., Ann Arbor.
Judd, C. H., Detroit.
Robbins, N. J., Negaunee.
Kimball, A. S., Battle Creek.
Lingle, G. E., Princeton.
Munson, J. F., Ann Arbor.
McCausland, M. B., Covert.
Martin, P. E., Imlay City.
Myers, C. M., Dowagiac.
Longstreet, M. L., Saginaw.
Newcomb, W. W., Detroit.
Payne, A. S., Manistee.
Rich, H. M., Detroit.
Sill, Joseph, Detroit.
Townsend, I. S., Detroit.
Tweedie, G. S., Sandusky.
White, P. D., Detroit.
Wagner, G. W., Detroit.
Winer, D. E., Vanderbilt.
Wisner, C. A., Columbiaville.
Wenger, A. V., Grand Rapids.

MINNESOTA.

Bushey, M. E., Arlington.
Barnum, E. E., Pine City.
Coventry, W. A., Duluth.
Crosby, J. A., Minneapolis.
Gronvold, F. O., Gary.
Gray, C. E., Kellogg.
Knauff, M. K., Two Harbors.
Lewis, A. J., Mora.
Maris, E. R., Duluth.
Pettit, C. W., Minneapolis.
Risjord, J. N., Fertile.

MISSISSIPPI.

Ellis, T. C. W., Vicksburg.
Gholson, N. G., Holly Springs.
Green, B. F., Drew.
Jackson, M. W., Water Valley.
McCallum, A., Edwards.
Martin, B. B., Vicksburg.
Mitchell, T. J., Jackson.
O'Leary, J. P., Vicksburg.
Poole, E. B., Clinton.
Ringold, J. O., Vaiden.
Spalding, F. C., Crawford.
Wilson, H. B., Vicksburg.

MISSOURI.

Atkisson, J. A., Morehouse.
Burnett, Clifton, St. Louis.
Brunig, F. H., Kansas City.
Dove, O. H., Kansas City.
Forsyth, R. C., Kirkwood.
Grote, W. F. H., St. Louis.
Hickerson, J. C., Independence.
Koenig, G. W., St. Louis.
Missimore, L. E., St. Louis.
Murray, L. F., Holden.
Naylor, Olin, Atlanta.
Settle, C. T., Langdon.
Schlosstein, A. G., St. Louis.
St. John, H. H. H., Edina.
Tiedemann, E., St. Louis.
Winter, Wm., St. Louis.
Vasterling, P. F., St. Louis.

MONTANA.

Piedalue, Joseph, Bozeman.

NEBRASKA.

Byers, S. J., Primrose.
Egbert, C. L., Glenville.
Greene, J. M., Manley.
Montgomery, W. P., Hickman.
Pedersen, P. M., Dunneborg.
Reeves, A. E., Farnam.

NEW HAMPSHIRE.

Kittredge, F. E., Nashua.
Merrill, J. F., Warner.
Rogers, C. C., Farmington.
Wallace, A. L., Nashua.

NEW JERSEY.

Brasefield, E. N., Phillipsburg.
Dodson, L. W., Jersey City.
Ellis, A. L., Metuchen.
Haupling, F. R., Newark.
Knecht, Cyrus, Matawan.
Keefe, S. J., Elizabeth.
Husserl, Siegfried, Newark.
Loughwan, A. J., Newark.
McLoughlin, T. J., Jersey City.
Martinetti, C. D., Orange.
Randall, C. H., Newark.
Sulouff, S. H., Jersey City.
Trainor, J. H., Newark.
Wolfson, Joseph, Jersey City.
Warman, David, Trenton.

NEW MEXICO.

Burnham, J. L., Las Cruces.
Spargo, W. W., Albuquerque.

NEW YORK.

Allen, F. L., Binghamton.
Beir, I. R., Rochester.
Brown, F. E., Brooklyn.
Coe, H. C., New York City.
Carter, W. W., New York City.
Crandall, F. M., New York City.
Clark, H. S., New York City.
Collie, J. J., Geneva.
Comstock, F. E., Wellsville.
Cook, R. G., Rochester.
Collier, M. S., Rochester.
Crombie, W. C., Mechanicsville.
Crosby, F. A., Lockport.
Curtice, L. E., Buffalo.
Dwyer, T. F., Buffalo.
Doane, Harriet M., Fulton.
Edebohls, G. M., New York City.
Fox, F. E., Fulton.
Farnham, L. D., Binghamton.
Gates, A. C., Kingston.
Goodridge, F. G., New York City.
Hunt, W. E., Little Falls.
Hodgskin, E. S., Boooklyn.
Houghton, H. S., New York City.
Heazlit, Ledra, Auburn.
Huber, J. B., New York City.
Jessup, W. H., Newark.
Lederman, M. D., New York City
Michael, F. M., Binghamton.
Monroe, N. A., Syracuse.
Mann, M. D., Buffalo.
Norwood, E. E., Kingston.
Neary, P. M., Cortland.
Peeler, L. E., Harrison.
Pascual, W. V., Brooklyn.
Pirkner, E. H. F., New York City.
Smith, L. B., Hornellsville.
Smith, F. C., New York City.
Valk, Francis, New York City.
Ward, W. D., Rochester.
Webster, H. G., Brooklyn.
Warner, L. F., New York City.

NORTH CAROLINA.

Averitt, K. G., Cedar Creek.
Bolton, M., Rich Square.
Brooks, G. C., Sunbury.
Brooks, E. H., Reidsville.
Coveness, Z. M., Wakefield.
George, D. S., Marshallberg.
Holt, W. P., Duke.
Schaub, O. P., Roxboro.
Walker, W. E., Graham.
Withers, S. M., Chadbourn.
Whitfield, W. C., Grifton.
Whitley, D. P., Millingport.

NORTH DAKOTA.

Dochterman, L. B., Williston.
Stough, R. W., Verona.
Truscott, J. R., Binford.

OHIO.

Bowman, D. S., Akron.
Bower, R. E., Chillicothe.
Berndt, D. A., Portsmouth.
Bayliff, J. E., Uniopolis.
Crabill, T. V., Osborn.
Beer, J. D., Wooster.
Calhoun, W. M., East Liverpool.
Chaney, G., New Guilford.
Davis, J. H., East Liverpool.
Dodd, V. A., Columbus.
Dickinson, T. F., Cincinnati.
Dromgold, S.T., Elmore.
Erdman, R. F., New Richmond.
Euans, E. W., Columbus.
Lund-Glaeser, B., Cincinnati.
Goodrich, G. I., Canal Dover.
Gabriel, H. C., Columbus.
Gooding, J. J., Gilmore.
Hodges, C. W., Hamilton.
Harris, I. B., Columbus.
Hoover, C. M., Alliance.
Hamilton, E. A., Columbus.
Hoopes, Carl W., Marysville.
Hoffhine, J. O., Columbus.
Hamilton, David Blair, Mason.
Hinnen, G. A., Cincinnati.
Inglis, W. D., Columbus.
Kunz, J. C., Cincinnati.
Krebs, P. H., Cleveland.
Keenan, W. H., Caldwell.
Lockhart, J. M., Eckmansville.
Lupton, Ella G., Gallipolis.
McCafferty, Frank, Columbus.
McClellan, Wilson M., Ashland.
McTeague, N. T., New Lexington.
Nelson, A. W., Cincinnati.
Nevin, W. C., Lisbon.
Oglesby, N. P., Columbus.
Oman, E. S., Columbus.
Ellison, S. J., Harveysburg.
Peelle, F. A., Wilmington.
Powell, C. F., Dayton.
Reedy, Clifton, Columbus.
Stauffer, Gilman W., Akron.
Scott, C. B., Londonville.
Solar, F. M., Cincinnati.
Thone, J. A., Columbus.
Thomas, J. M., Columbus.
Temple, J. C., Alliance.
Teeters, C. A., Jeffersonville.
Tribbet, C. A., Westboro.
West, S. L., St. Clairsville.
Weller, J. N., Akron.
Williams, D. A., Franklin.
Wickham, Wm., Toledo.
Wray, K. M., Columbus.
Wood, G. W., Wilmington.
Whelan, R. E., Youngstown.

OKLAHOMA.

Mueller, J. A., Snyder.
Runkle, R. E., El Reno.
Warhurst, M. A., Remus.

OREGON.

Rentz, E. B., Frost Grove.

PENNSYLVANIA.

Burnham, C. G., Jeannette.
Barney, E. R., Wattsburg.
Craig, C. R., Philadelphia.
Donnelly, Florence, E. Conshohocken.
Detrick, F. A., Cresson.
Flynn, J. F., Erie.
Gordner, Frank, Montgomery.
Glover, O. W. H., Laurelton.
Gensimore, C. W., New Enterprise.
Henderson, F. N., Norristown.
Hogue, D. A., Altoona.
Howe, Wm., Shingle House.
Hemminger, Geo., Carlisle.
Hoffman, C. W., Rimersburg.
Kistler, E. H., Lansford.
Johnson, F. C., Wilkesbarre.
Loeb, Ludwig, Philadelphia.
Lyons, Fowler, Turbotville.
McKee, M. A., Oil City.
McIlhatten, S. P. M., Idyland.
Mitchell, S. Weir, Philadelphia.
Maine, C. L., Helvetia.
Mathiott, G. H., Mare.
Nielsen, L. B., Honesdale.
Patterson, F. D., Philadelphia.
Peterman, J. H., Grant.
Ridpath, R. F., Philadelphia.
Ramsey, W. S., Coraopolis.
Rutherford, J. Frank, Bishop.
Shearer, W. L., Reading.
Sherman, Jeanette H., Norristown.
Ward, E. L., Osceola.
Woods, A. B., Erie.
White, Amy E., Chester.
Walker, C. I., Sharon.
Weida, I. J., Emaus.
Woods, G. B., Curllsville.

PHILIPPINE ISLANDS.

Edwards, R. T., Manila.

RHODE ISLAND.

Buffum, W. H., Providence.
DeWolf, H., Providence.
Gomberg, M. B., Providence.
Phillips, J. L., Providence.
Rogers, F. W., Newport.

SOUTH CAROLINA.

Shaw, A. E., Columbia.

SOUTH DAKOTA.

Bobb, C. S., Mitchell.
Frink, R. P., Wagner.
Maddren, Edith L., Cherry Creek.

TENNESSEE.

Burke, R. A., Dyersburg.
Beasley, M. A., Hampshire.
Cotten, L. D., Sparta.
Coble, T. J., Shelbyville.
Capps, J. M., Nashville.
Cochran, T. N., Holly Leaf.
Gibbs, Vaulx, Chattanooga.
Haskins, E. T., Newbern.
Hogshead, J. McC., Chattanoga.
Hope, W. T., Chattanooga.
Johnson, J. W., Chattanooga.
King, R. W., Gordonsville.
Kennedy, W. T., Johnson City.
Long, E. A., Johnson City.
McGrew, S. J., Shelbyville.
Pearson, W. S., Rossville.
Robertson, E. A., Chattanooga.
Shugart, J. L., Cleveland.
Taylor, W. B., Greeneville.
Walker, D. A., Trenton.
West, J. Q. A., Knoxville.

TEXAS.

Acheson, A. W., Denison.
Bailey, R. H., Gainesville.
Blanton, J. J., Buda.
Bristow, W. C., Athens.
Bell, B. F., Whitehouse.
Bryan, T. F., Iredell.
Brown, J. P., Gustine.
Cooke, E. F., Forreston.
Camp, Jim, Pecas.
Cates, S. R., Abilene.
Cox, Marion L., Canton.
De Long, A. C., Winters.
Elliott, J. R., Palacios.
Eidman, F. G., Houston.
Hoard, W. R., Sherman.
Hanna, J. J., Amarillo.
Homan, D. C., Oglesby.
Holman, J. C., Franklin.
Hudgins, D. H., Forney.
Howard, W. R., Fort Worth.
Harper, J. R., Rosston.
Howell, R. L., Snyder.
Jordan, D. M., Oglesby.
Klein, Nettie, Texarkana.
Lockett, W. A., Amarillo.
Merrill, T. C., Colorado.
Milner, J. N., Cade.
McGee, T. F., Amarillo.
Morrison, T. A., Grosvenor.
Mahon, Lytton S., Jonesboro.
Milburn, J. R., Ector.
Matthews, Y. A., Atlanta.
McClung, R. L., Atlanta.
Parker, P. E., Bay City.
Priester, W. G., Houston.
Richardson, J. A., Seymour.
Strong, Sneed, Bowie.
Steele, E. H. B., Jennings.
Small, A. B., Waxahachie.
Schmoeller, W., Sealy.
Taylor, T. B., Elgin.
Teas, T. M., Denison.
Worsham, J. P., Corsicana.
Wood, J. H., Hubbard.
Williams, C. B., Mineral Wells.
Witte, B. E., San Antonio.
Williams, E., Celeste.
Wheeler, J. Smilie, Coryell.
Young, W. M., Dallas.

UTAH.

Clift, Frederic, Provo.

VERMONT.

Hayward, H. H., Tunbridge.

VIRGINIA.

Belt, H. S., South Boston.
Croxton, W. E., Wakema.
Huff, I. E., Roanoke.
Jordan, S. R., Virgilina.
Mercer, C. W., Blackstone.
Williams, W. L., Brook Neal.
Wallace, A. McG., Gate City.
Womack, J. H., Spring Garden.

WASHINGTON.
Cook, G. F., Bellingham.
Lum, H. K., Monroe.
McCarthy, H. H., Spokane.

WEST VIRGINIA.
Archer, W. M., Jr., Stone Cliff.
Rodgers, G. C., Gladys.
Willis, C. A., Jennings ton.
Yeakley, W. H., Davis.

WISCONSIN.
Bradford, E. B., Hudson.
Carhart, G. A., Milwaukee.
Devine, G. C., Mason.
Dewey, G. W., Burnett.
Egeland, G. R., Ephraim.
Foerster, O. H., Milwaukee.
Fiebiger, G. J., Waterloo.
Flett, Charles, Waterford.
Greengo, C. G., Chilton.
Hougen, Erward, Pittsville.
Knauf, F. P., Kiel.
Lynch, D. W., West Bend.
Nixon, A. J. W., Delafield.
Rector, A. E., Appleton.
Rostad, K. T., Spring Valley.
Sleyster, L. R., Kiel.
Stockman, B. G., Woodville.

WYOMING.
Walker, G. W., Hyattville.

Marriages

JOSEPH BIELLO, M.D., to Miss Maria T. DeLuca, both of Philadelphia, February 21.

J. WILLIAM EIDSON, M.D., to Miss Bertha Anne Staley, both of Bourbon, Ind., February 14.

J. HUBERT WADE, M.D., to Miss HELENE HECK, M.D., both of Boonsboro, Md., January 24.

JOY HARRIS, M.D., and Squire G. T. Glasscock, both of Greensboro, N. C., February 22.

I. VALENTINE LEVI, M.D., Philadelphia, to Miss Helena Rosenstein of Lancaster, Pa., February 22.

CHARLES M. DUNNING, M.D., Franklin Furnace, N. J., to Miss Isabelle Watt of Hamburg, N. J., recently.

PHILIP HANSON HISS, M.D., New York City, to Miss Caroline Daw, in Brooklyn, N. Y., February 13.

HANNAH C. MCCAHAN FLEMING, M.D., and William J. Moran, both of Falls City, Neb., at Hiawatha, Kan.

GEORGE W. MCCAFFERTY, M.D., Norristown, Pa., to Miss Esta Mae Grove of Stewartstown, Pa., February 18.

ELMER E. BARTELT, M.D., Lamar, Colo., to Miss Nellie Gersbach of Montezuma, Iowa, in Denver, Colo., February 18.

WILLIAM EDGAR WIRT, M.D., Havana, Cuba, to Mrs. Lucy J. Belding of Cleveland, Ohio, at Jacksonville, Fla., February 12.

CHARLES WESLEY BISHOP, M.D., Minneapolis, Minn., to Mrs. Milda Catherine Werder of Milwaukee, Wis., at Clinton, Iowa, February 20.

Deaths

John E. Bingham, M.D. Jefferson Medical College, Philadelphia, 1873; first president of the Walla Walla Medical Society; for four years a surgeon in the United States Marine Corps, and afterward acting assistant surgeon in the United States Army, in the Nez Perce campaign and in the Spanish-American War; for one term a member of the State Board of Medical Examiners; physician to the state penitentiary; local surgeon at Walla Walla, Wash., of the Oregon Railway & Navigation Company, died at his home in Walla Walla, February 19, from nephritis, aged 59.

Joseph Hils, M.D. McGill University, Medical Department, Montreal, 1873; a prominent physician of Woonsocket, R. I.; a member of the Rhode Island Medical Society and of the Woonsocket District Medical Association; consulting surgeon of St. Joseph's Hospital, Providence, in 1894, and a member of the Woonsocket Hospital staff and surgeon-in-chief since the foundation of the institution in 1888, died at the Woonsocket Hospital, February 23, from nephritis, after an illness of three weeks, aged 56.

John Williamson Palmer M.D. University of Maryland, School of Medicine, Baltimore, 1846; first city physician of San Francisco, in 1849-50; surgeon in the Burmese War, in 1851 and 1852; a Confederate war correspondent during the Civil War; one of the editors of the Century and Standard dictionaries; distinguished as a physician, traveler, litterateur and poet, died at his home in Baltimore, February 26, from senile debility, aged 80.

Joseph P. Bolton, M.D. Jefferson Medical College, Philadelphia, 1890; demonstrator of chemistry and physiology in that institution; a member of the Philadelphia County Medical Society; assistant in the orthopedic and neurological outpatient departments of Jefferson Hospital, died in that institution February 24, a week after an operation for tumor of the brain, aged 66.

James B. Cherry, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, 1868; a veteran of the Civil War; a trustee of the pauper institutions of Boston in 1904; for several terms medical director of the Department of Massachusetts, G. A. R.; a member of the Fusilier Veteran Association and of the Ancient and Honorable Artillery Company, died suddenly at his home in Boston, February 21, from heart disease, aged 62.

Edwin Geer, M.D. College of Physicians and Surgeons, Baltimore, 1891; organizer and commander of the Maryland Naval Brigade; surgeon to the fire department of Baltimore; formerly coroner of Baltimore County, and assistant quarantine officer of Baltimore; a lieutenant senior grade in the Navy during the Spanish-American War, died at his home in Baltimore, February 25, from septicemia, after a long illness, aged 41.

Samuel Doolittle Brooks, M.D. Berkshire Medical College, Pittsfield, Mass., 1841; superintendent of the New York Juvenile Asylum from 1863 to 1873; for six years medical supervisor of Mount Holyoke Academy, South Hadley, Mass., and for five years superintendent of the Massachusetts State Almshouse, died at his home in Springfield, Mass., February 26, aged 89.

C. Henri Woode, M.D. Howard University, Medical Department, Washington, D. C., 1892; one of the most prominent colored practitioners of Vicksburg, Miss.; for ten years a member of the board of pension examining surgeons; founder and president of the Union Savings Bank of Vicksburg, died at his home in that city, February 26.

Laird M. Woods, M.D. University of Buffalo, Medical Department, 1872; burgess of Wheatland, Pa., for several terms; for ten years surgeon for the Pennsylvania Road; for several terms coroner of Polk County, Ore., died at his home in Dallas, Ore., February 12, from septicemia, due to a carbuncle, after a long illness, aged 70.

August Rhoads, M.D. Chicago Medical College, 1873; for thirty years a practitioner of Carthage, Mo.; a veteran of the Civil War; a prominent member and several times an officer of the Jasper County Medical Society, died at his home in Carthage, February 28, from nephritis, after an illness of four months, aged 69.

John T. Coates, M.D. Kentucky School of Medicine, Louisville, 1872; a veteran of the Civil War; for fourteen years a practitioner of Milwaukee, died at his home in that city, February 22, as a result of injuries sustained Sept. 4, 1905, when he was crushed between a dray and a moving railway car, aged 55.

John O. F. Hill, M.D. Long Island College Hospital, Brooklyn, N. Y., 1886; a member of the Kings County Medical Society, and formerly a member of the Coney Island school board; probably the best known physician of Coney Island, died in Connecticut, February 27, after a brief illness, aged 43.

C. E. Boynton, M.D. College of Medicine, Syracuse University (N. Y.), 1888, formerly resident physician at the Onondaga County (N. Y.) Insane Hospital and later a practitioner in Wyoming, Oregon, Washington, California and Utah, died in Redding, Cal., February 12, after a long illness, aged 45.

Sumner Clark, M.D. St. Louis Medical College, 1871; a member of the American Medical Association; one of the most prominent and wealthy physicians of Effingham County, Ill.; owner of the Effingham *Republican*, died at his home in Effingham, March 4, from pneumonia, after a short illness.

Abner C. Calvin, M.D. Jefferson Medical College, Philadelphia, 1878, of Meadville, Pa., died suddenly at the City Hospital, Meadville, from edema of the lungs, February 24, two weeks after a runaway accident in which he was thrown from his buggy and sustained serious injuries, aged 51.

Charles A. Foster, M.D. College of Physicians and Surgeons in the City of New York, 1870, of Newark, Ohio, at one time a member of the faculty of the Ohio Medical University, died from uremia at the City Hospital, Newark, February 21, eight days after an operation for appendicitis, aged 64.

Alfred J. Catellier, M.D. Laval University, Medical Department, Quebec, 1891, a member of the American Medical Association, and one of the most prominent physicians of New Hampshire, died at his home in Berlin, February 17, from heart disease, after a brief illness, aged 38.

Joseph Edgar Wells, M.D. Jefferson Medical College, Philadelphia, 1887; a member of the American Medical Association and of the Kings County (N. Y.) Medical Society; a prominent practitioner of Brooklyn, died at his home in that city, February 26, from heart disease, aged 41.

Benjamin F. Tombs, M.D. Cleveland (Ohio) Medical College, 1867; a member of the Cambria County (Pa.) Medical Society; a well-known practitioner of Morrellville, Pa., died at his home in Johnstown, Pa., February 19, from nephritis, after an illness of several years, aged 70.

C. W. Salter, M.D. Medical College of Georgia, Augusta, 1879; a prominent physician and planter of Bartow, Ga.; twice a representative of Jefferson County in the legislature, died at his home in Bartow, February 22, from acute gastritis, aged 57.

Hiram A. Peterman, M.D. Eclectic Medical Institute, Cincinnati, 1857; a surgeon in the army during the Civil War, died at his home in Marshall, Mich., February 23, from senile debility following a fracture of the hip eight weeks before, aged 84.

Richard S. Vickery, M.D., assistant surgeon, Second Michigan Infantry, and afterward surgeon in the Civil War; successively assistant surgeon, captain, major and lieutenant-colonel in the regular establishment, died recently in New Jersey.

John V. Nash, M.D. Tulane University of Louisiana, Medical Department, New Orleans, 1888, coroner of Sabine Parish, Louisiana, for two terms, died at his home in Many, La., February 23, from nephritis, after an illness of two weeks, aged 46.

Harold F. Thompson, M.D. Tuft's College Medical School, Boston, 1905, an interne at the Worcester City Hospital, died in that institution February 19 from pneumonia, following rheumatism, after an illness of less than two weeks, aged 25.

J. H. Giddings, M.D. Castleton (Vt.) Medical College, 1856; a pioneer practitioner of Harrison County, Iowa; surgeon in an Illinois regiment during the Civil War, died at his home in Woodbine, Iowa, February 28, from pneumonia, aged 74.

David S. Allhands, M.D. Eclectic Medical Institute, Cincinnati, 1856; University of Louisville, Medical Department 1893, of Louisvile, died at St. Anthony's Hospital in that city, February 23, from uremia, after a long illness, aged 72.

Edward H. Mayer, M.D. Howard University, Medical Department, Washington, D. C., 1885, the first regular colored practitioner of Columbus, Ga., died at his home in that city, February 24, from pneumonia, after an illness of one week.

John Udolphus Haynes, M.D. Albany (N. Y.) Medical College, 1872, for several terms alderman and member of the board of education of Cohoes, N. Y., died at his home in that city, February 23, after a protracted illness, aged 56.

William Hill, M.D. Jefferson Medical College, Philadelphia, 1856; once United States consul at Sarnia, Ont.; a prominent practitioner of Bloomington for nearly fifty years, died at his home in Bloomington, Ill., March 1, aged 77.

George K. Harrington, M.D. Bellevue Hospital Medical College, New York City, 1874, for many years a leading practitioner of Jackson, Miss., died suddenly from cerebral hemorrhage in Canton, Miss., February 19, aged 54.

Lawrence G. Mitchell, M.D. University of Maryland, School of Medicine, Baltimore, 1884, Downings, Va., a member of the American Medical Association, died near Sharp's Wharf, Richmond County, Va., February 28, aged 44.

C. T. Simpson, M.D. Medical College of Alabama, Mobile, 1877, formerly of Temple, Texas, and superintendent of the State Insane Hospital, Austin, died at his home in Cananea, Mexico, February 18, from pneumonia.

C. C. Cole, M.D. Ohio Medical University, Columbus, 1896, coroner of Belmont County, Ohio, in 1902, of Bridgeport, Ohio, died at the City Hospital, Wheeling, W. Va., from gallstone disease, February 25, aged 37.

L. P. Rogers, M.D. Rush Medical College, Chicago, 1876, of Beatrice, Neb., formerly a practitioner of Buffalo, Ill., was instantly killed February 25, at Godfrey, Ill., by falling under the wheels of a passenger train.

Daniel Webster Cooper, M.D. New York University, New York City, 1855, for many years a practitioner of Port Jervis, N. Y., died in Mount Salem, N. Y., suddenly, from heart disease, February 14, aged 74.

William F. Drake, M.D. New York University, New York City, 1889, died at his home in New York City, March 1, from the effects of an overdose of morphin, self-administered for the relief of neuralgia, aged 39.

Thomas Noys Birnie, M.D. College of Physicians and Surgeons in the City of New York, 1880, of Springfield, Mass., died at Orlando, Fla., February 26, from nephritis, after a long illness, aged 51.

Thomas J. Clouse, M.D. Eclectic Medical College of Pennsylvania, Philadelphia, 1869, died at his home in Gahanna, Ohio, from subacute nephritis, after an illness of three days, February 25, aged 64.

Samuel Breitenbach, M.D. College of Physicians and Surgeons in the City of New York, 1848, died at his home in Roxborough, Philadelphia, February 27, after a prolonged illness, aged 80.

Lewis Bieber, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, 1867, a veteran of the Civil War, died at his home in Phillipsburg, N. J., February 26, aged 61.

S. J. Withers, M.D. Department of Medicine of the University of Pennsylvania, Philadelphia, 1850, a well-known practitioner of Mooresville, Ala., died at Pine Bluff, Ark., February 27, aged 78.

J. Linwood Gunn, M.D. Kentucky School of Medicine, Louisville, 1877, of Ashland, N. C., was thrown from his buggy near Williamson's Mill, N. C., February 22, and instantly killed, aged 45.

Thomas Hill, M.D. New York University, New York City, 1854, surgeon in the Confederate service during the Civil War, died suddenly at his home in Goldsboro, N. C., February 18, aged 73.

Randall Holden, M.D. Baltimore Medical College, 1861, assistant surgeon in the Confederate service during the Civil War, died at his home in Petersburg, Va., February 3, aged 86.

Addison H. Foster, M.D. College of Physicians and Surgeons in the City of New York, 1866, formerly a prominent practitioner of Chicago, died at his home in Oak Park, Ill., March 3.

George W. McConneH, M.D. Eclectic Medical Institute, Cincinnati, 1874, died at his home in Ashland, Ore., from acute gastritis, February 22, after an illness of two days, aged 56.

Adam L. Galbraith, M.D. Medical College of Ohio, Cincinnati, 1890, died at his home in Frankfort, Ohio, February 20, from tuberculosis, after an illness of several years, aged 39.

Thomas Walker Murray, M.D. Jefferson Medical College, Philadelphia, 1885, died at his home in Philadelphia, February 25, from pneumonia, after a short illness, aged 45.

Abel L. Darling, M.D. Eclectic Medical Institute, Cincinnati, 1881, of Kilbourne, Ill., died suddenly at a hotel in Pekin, Ill., from heart disease, February 23, aged 55.

Edward K. Thompson, M.D. Hahnemann Medical College and Hospital, Chicago, 1888, died at his home in Kansas City, Mo., after an illness of four days, February 27, aged 44.

Eli Stofer, M.D. Medical Department of the Western Reserve University, Cleveland, Ohio, 1881, died at his home in Bellville, Ohio, February 27, from lung disease, aged 50.

Stephen L. Breckenridge, M.D. St. Louis Medical College, 1879, a member of the American Medical Association, died at his home in Riverside, Ill., February 21, aged 44.

Augustus L. Gilbert M.D. University of Buffalo (N. Y.) Medical Department, 1848, died at his home in North Cohocton, N. Y., February 22, from pneumonia, aged 81.

William H. Hinton, M.D. University Medical College of Kansas City, 1896, of Ogden, Utah, died at the Ogden General Hospital, February 19, from meningitis, aged 37.

John D. Mulheron, M.D. Jefferson Medical College, Philadelphia, of Nashville, died at the home of his mother in Brownsville, Tenn., February 18, aged 37.

Stephen M. Harris, M.D. Cooper Medical College, San Francisco, 1890, twice mayor of Grass Valley, Cal., died at his home in that city, February 18, aged 77.

Nicholas D. Young, M.D. Tulane University of Louisiana, Medical Department, New Orleans, 1867, died at his home in Youngsville, La., February 8, aged 64.

Leonard P. Aaron, M.D. North Carolina Medical College, Davidson, died at his home in Mount Olive, N. C., from heart disease, after a long illness, aged 32.

Cynthia Singleton-Sheffield, M.D. Eclectic Medical Institute, Cincinnati, 1884, died at her home in Waterloo, Iowa, February 17, after a short illness, aged 60.

Edward M. Allen, M.D. Vanderbilt University, Medical Department, Nashville, 1893, died suddenly at his home in Dayton, Tenn., February 22, aged 35.

J. H. Chandler, M.D. University of Tennessee, Medical Department, Nashville, 1900, of Jackson, Tenn., died in Gibson, Tenn., February 19, aged 35.

J. C. Riley, M.D. Atlanta (Ga.) Medical College, 1894, of Hamilton, Ga., died suddenly at Phoenix, Ariz., February 17.

B. W. Woodburn, M.D. (Thirty-three Years' Practice, Kentucky, 1893), died at his home in Bremen, Ky., February 24, from heart disease, aged 73.

Albert D. Hill, M.D. Albany (N. Y.) Medical College, 1879, died suddenly at his home in Chicago, March 4, from heart disease, aged 57.

C. D. Osburn, M.D. Jefferson Medical College, Philadelphia, 1886, died at his home in Wilsonville, Ore., February 19, from acute gastritis.

George L. Newcombe, M.D. Harvard University Medical School, Boston, died at his home in North Scituate, Mass., February 21.

N. Lee Howison, M.D. State University of Iowa, Medical Department, Iowa City, 1882, died at his home in Bogata, Texas, February 19.

David McClenehan, M.D. Starling Medical College, Columbus, Ohio, 1863, died at his home in Cedar Rapids, Iowa, February 25, aged 86.

Death Abroad.

S. S. Rosenstein, M.D., professor of experimental pathology and pathologic anatomy at Leyden, died January 31, aged 74. He was a native of Berlin and privat docent at the university until he accepted a call to Holland in 1865. His greatest work was a treatise on pathology and treatment of kidney affections, 1863, which has been translated into several languages. Among his other numerous works are several on diabetes, cirrhosis of the liver, etc., and his pupils, de Jong and de Haan, have also made notable contributions to the pathology of digestion and metabolism.

Book Notice

PSYCHIC TREATMENT OF NERVOUS DISEASES. P. DuBois. Translated and edited by S. E. Jelliffe, M.D., Ph.D., and W. A. White, M.D. Cloth. Pp. 466. Price, $3.00 net. New York: Funk & Wagnalls Co. 1905.

In these days when so much has been said and is still being said in regard to suggestion in medical treatment this translation of Professor DuBois' work on the psychoneuroses and their moral treatment is timely. It differs decidedly from much of the literature on the subject that is so familiar to us. There is no claim of the virtues of hypnotism. The author's methods are not mysterious, but are based on common-sense principles, accepting as he does the amenability of a large class of diseases to mental influences rationally employed. In so far, however, as it is a protest against physical methods in these special disorders it may not command absolute agreement with its demands on the part of all its readers. Every skilled practitioner must be well aware of the value of moral treatment in many cases, and there are few, if any, who do not consciously use it in their practice. A very large number will, nevertheless, find the work very suggestive and profitable reading, even if they can not follow the author in all of his views.

The first six or seven chapters, comprising about one-fifth of the volume, are not strictly medical, but rather psychologic. In these the author develops his ideas that have led him up to the therapeutic position he has taken and which he considers an essential introduction to the more practical part of his work. It does not follow, however, according to his own statement, that it is necessary for the success of his methods that the physician employing them must be like him, a materialistic monist and determinist, and those, therefore, who may find themselves disagreeing with his very pronounced opinions may still derive profit from his book.

The psychotherapy which he calls rational is addressed directly to the reason of the patient, and depends very largely on the tact and sympathy of the physician—fully as much as on his faith in his theories and methods. The patient must be inoculated with the idea that his case is a curable one, his exaggerated susceptibilities must be toned down and, while DuBois does not specially favor the use of drugs and ridicules their use in many of these conditions, he does not neglect the advantages of certain physical measures such as environment, etc. Thus he employs a modified Weir Mitchell method, without any special dependence on electricity and massage measures, and places the principal stress on purely moral treatment with rest and good nutrition in a well-regulated sanitarium. In fact, he rather condemns, for many cases, the employment of even elaborate clinical examination methods as tending to produce a mental condition unfavorable to the psychic treatment. He employs his treatment not only in cases clearly hysterical and neurasthenic, but also in conditions that are sometimes considered organic, such as mucous or so-called membranous colitis, which, according to his observation, is mainly the result of habitual constipation. It is probable that some of our specialists in rectal diseases may think his observation imperfect in some of these cases.

Take it as a whole, however, Professor DuBois' work makes a very good showing for moral treatment in a very large class of disorders not dependent on determinable permanent organic changes. Whether every practitioner will be able to go his length in the rejection of drug medication and certain physical agencies is, perhaps, a question, and it certainly will require more than usual diagnostic skill to exclude a possible element of organic disease in many of these cases. The book is one, however, that few judicially minded physicians can read without profit. It is beautifully written and the translation seems to very fairly reproduce the spirit as well as the accurate text of the original. The obtrusiveness of the author's religious heterodoxy, which is not an essential feature in a work of this kind, might well have been omitted. But Professor Dejerine says in his preface that DuBois is "a man with convictions," which he is not afraid to express in religious as well as in other matters. We have also the same authority as evidence that Dr. DuBois has resolutely and thoroughly carried out his ideas in his therapy and as it here appears with great success.

Miscellany

Diseases of the Indians.—At a joint meeting of the Medical and Anthropological societies of the District of Columbia, Dr. Ales Hrdlicka read a paper on this subject. His information was derived partly from personal observation and partly from data furnished by physicians in the Indian service. He said that on the whole the health of the Southwestern and North Mexican uncivilized Indians is superior to that of the whites living in larger communities. The Indian's advantage lies chiefly in the greater freedom from those morbid conditions that arise through defective heritage; from those that in the white race frequently accompany teething, puberty, menstruation, gestation, menopause and senility, and from malignant growths; while the only disadvantage of the Indian consists in a possibly lesser resistance to some of the contagious diseases, notably smallpox and measles. He stated that pathologic conditions of the blood are rare, but that anemia is occasionally met in the later stages of malaria or in a slight degree in some of the taller schoolgirls who have become debilitated. Occasionally the thyroid degenerates into goiter. The lymph glands appear to be the seat of only one affection and that scrofula; even this is rare. The prostate was found enlarged in only a few instances. Affections of the mammary gland are much less common than in white women. Diseases of the circulatory system are very infrequent but, on the other hand, respiratory affections are relatively common and cause numerous deaths. Varicose veins are rare, as are hemorrhoids. Disorders of the digestive apparatus, he states, are more common than any other disease of the Indians, but except in infants they are rarely serious. Typhoid is uncommon, though forms of bloody diarrhea or dysentery, often probably of malarial origin, attack Indians of certain localities, especially in the lower parts of Mexico. Intestinal parasites are seldom heard of. Kidney disorders in pregnancy, and eclampsia are rare. Diseases of the skin are chiefly limited to eczema, favus or ulcers, in the children, acne in young adults, and ulcers due to neglect in the older. Headache is common, but epilepsy, insanity and paralysis are rare, and idiocy is almost unheard of. Strabismus is very rare. Narrowing of the lids from chronic conjunctivitis is common in old people. Corneal ulcerations and opacities are not infrequent and occa-

sionally cataract is seen. Defect of the palate in a full-blooded Indian has never been seen and only one case of minor hare-lip was observed. Except syphilis and gonorrhea, diseases of the sexual organs are seldom indicated by any external sign, among those who approach or are approached by a physician. Notwithstanding the unhygienic condition of the Indians, neither gonorrhea nor syphilis is commonly attended by great destruction of tissues or by grave general consequences. Signs of hereditary syphilis in children are uncommon. Syphilis in the Indians affects the bones as it does in the whites; therefore, if syphilis existed before the Spaniards reached this country, signs of it should be at least occasionally discovered in the ancient burials. But the bones of the old burial places are, as a rule, free from any sign of the disease; and this is true of the bones from ancient graves in California, northwest coast and other localities, exclusive of some mounds. It is difficult to see, if the disease existed before the whites came, how, with the well-known wide intercourse among the Indians, whole great regions could escape it. It may be remarked that it is also absent in the older burials from Peru and other localities in South America.

Ultimate Fate of Tetany Patients.—At a meeting of the Vienna Medical Society, January 25, von Frankl-Hochwart reported the results of recent investigation into the present condition of all the patients with tetany whom he has had under his care. He was able to learn the fate of 55 out of the total 160. Eleven had died, their lives considerably shorter than the average for their circumstances and occupations. It is possible, he thinks, that the tetany may have induced a constitutional weakness which rendered the subjects less resistant to mild infectious diseases. Of the remaining 44, letters were received from 7, and 37 were personally examined. Only 14 of the entire number are healthy, with 4 only partially so; 19 present tetanoid conditions, some exhibiting a kind of chronic debility suggesting myxedema, and 7 suffering from recurring tetany, the attacks coming on most frequently in the winter months. In none of the cured cases is there enlargement of the thyroid, but it is frequent among the others. One of the tetany patients has a child who also exhibits tetany. His experience has been that the epidemics of tetany occur during a few years at a place and then subside to crop up somewhere else. He preaches that the prognosis of tetany is not so favorable as generally taught, the ultimate findings in his 55 cases having materially modified his views. The *Wien. klin. Wochft.* for February 8 contained a report of the meeting.

Fatal Suprarenal Hemorrhage from Sunstroke.—Prof. A. Sodré of Rio has been making a special study of "thermic fever," "febre de calor" as he calls it, the result of sunstroke or heat-stroke. On several days in last December there were as many as 10 cases a day at Rio de Janeiro. The autopsy findings in one case, reported by S. Moniz in the *Revista Medico-Cirurgica do Brazil* for December, showed that death was due to hemorrhage from the suprarenal capsules. The patient was a man of 30, working out of doors when overcome by the heat. His temperature was 41.6 C. (107 F.) and he was in convulsions when first seen. General asthenia and intense thirst continued for four days, the heart action weak but distinct, no albumin or sugar in the urine. Slight improvement was noted the fourth day, but the patient died suddenly while at stool. The viscera were found comparatively normal with the exception of the suprarenal capsules which had ruptured from the pressure of a large hemorrhage.

Queries and Minor Notes

HAGER'S CORYZA REMEDY.

A correspondent asks about Hager's coryza remedy. Olfactorium anticatarrhoicum (Hager) is no doubt the preparation intended. A small wide-mouth vial is filled one-third full of the following solution:

R. Phenolis,		
Alcoholis, ää	3iiss	10
Aquæ ammoniæ	3iii	12
Aquæ dest.	3v	20

The vial is then filled with a plug of cotton for inhalation in coryza, catarrh, and similar affections.

State Boards of Registration

COMING EXAMINATIONS.

MAINE State Board of Registration of Medicine, City Building, Portland, March 13. Secretary, Wm. J. Maybury, Saco.

CONNECTICUT Medical Examining Board, City Hall, New Haven, March 13-14. Secretary, Charles A. Tuttle, New Haven.

MASSACHUSETTS Board of Registration in Medicine, State House, Boston, March 13-14. Secretary, Edwin B. Harvey, Boston.

Alabama Report.—Dr. W. H. Sanders, chairman of the State Board of Medical Examiners of Alabama, reports the written examinations held by the county and state boards of Alabama during the year 1905. The number of subjects examined in was 10; number of questions asked, 6 to 10 in each branch or subject; percentage required to pass, 75. The total number of candidates examined was 154, including 14 non-graduates, of whom 131 passed and 23 failed, including 1 osteopath. The following colleges were represented:

College.	Year Grad.	Per Cent.
PASSED.		
Medical College of Alabama, (1903) 92; (1904) 78, 81, 82, 83, 92; (1905) the grades of 75, 80 and 81 were reached by one each, 82 and 83 by two each, 84 and 85 by one each, 86 by five, 87 by three, 88 by two, 89 by three, 92 and 93 by two each, and 95 and 98 by one each.		
Leonard Med. Coll.	(1905)	76, 82, 83
Chattanooga Med. Coll., (1902) 80; (1905) the grade of 76 was reached by three, 82 by one, 83 by two and 84 and 88 by one each.		
Memphis Hosp. Med. Coll., (1899) 82; (1904) 88; (1905) 78, 83, 93.		
College of P. and S., Atlanta	(1905)	76, 83, 87, 88
Vanderbilt University	(1890) 84; (1905)	84, 84, 85, 95
Birmingham Med. Coll.	(1905)	80, 85, 85, 87, 88, 91, 91
Meharry Med. Coll.	(1905)	76, 78, 78, 82, 83, 86, 86
Grant University	(1905)	79, 86
Knoxville Med. Coll.	(1901)	79
University of the South	(1904) 82; (1905)	83, 90, 91
Cornell University	(1905)	89
University of Virginia	(1897) 87; (1903) 86; (1906)	85, 89
University of Missouri	(1904)	88
Rush Med. Coll.	(1889) 91; (1904)	86
Louisville Med. Coll.	(1885) 75; (1888) 88, 88; (1905)	86, 90
Louisville Hosp. Med. Coll.	(1905)	92
Baylor Med. Coll.	(1905)	76
University of Nashville	(1905)	84, 85, 90, 91, 92, 92
University of Louisville	(1904) 84; (1905)	86
Tulane University	(1905)	75, 75, 82, 88, 90, 96
Johns Hopkins University	(1905)	89
College of P. and S., New York	(1905)	90
Baltimore Med. Coll.	(1905)	90
Kentucky University	(1905)	88
Maryland Med. Coll.	(1905)	82, 95
Chicago Homeo. Med. Coll.	(1900)	80
Beach Med. Institute, Indianapolis	(1886)	*83
Kentucky School of Med.	(1888)	79
Herring Med. Coll.	(1898)	77
University of Pennsylvania	(1904)	89
Jefferson Med. Coll.	(1904)	91
FAILED.		
Chattanooga Med. Coll.	(1901) 65; (1905)	71, 71
Memphis Hosp. Med. Coll.	(1902)	69
University of Nashville	(1901)	62, 73
Louisville Med. Coll.	(1891)	70
Medical College of Alabama	(1905)	68, 72
Meharry Med. Coll.	(1905)	61, 61
Rush Med. Coll.	(1905)	70
Atlanta Med. Coll.	(1893)	61
College of P. and S., Keokuk	(1891)	65
University of Tennessee	(1901)	68
Barnes Med. Coll.	(1885)	70
Georgia Coll. of Ecl. Med. and Surg.	(1897)	32

* This school merged with Indiana Eclectic Med. Coll. in 1886.

The Public Service

Army Changes.

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ending March 3, 1906:

Kirkpatrick, Thos. J., asst.-surgeon, granted thirty days' leave of absence. Reported for treatment at Army General Hospital, Washington Barracks, D. C.

Thorp, Charles W., contract surgeon, returned to Fort Ethan Allen, Vt., from sick leave.

Enders, William J., contract surgeon, left Fort Morgan, Ala., on leave of absence for one month, ten days.

Wall, Francis M., contract surgeon, left Fort Oglethorpe, Ga., on leave of absence for eight days.

Whinnery, Jean C., dental surgeon, left Fort Wright, Wash., for duty at Fort Stevens, Oregon.

Ware, William H., dental surgeon, returned to duty at Fort Logan, Colo., from leave of absence.

Long, Charles J., dental surgeon, left Fort Snelling, Minn., for duty at Fort Harrison, Mont.

Rietz, Hugo C., dental surgeon, left Fort Sheridan, Ill., for duty at Fort Thomas, Ky.

Bailey, Erward, contract surgeon, granted leave of absence for four months.

Long, Stephen M., contract surgeon, granted leave of absence for one month.

Stuckey, Harrison W., contract surgeon, returned from temporary duty at Fort Assinniboine, Mont., to Fort Snelling, Minn.

Navy Changes.

Changes in the Medical Corps, U. S. Navy, for the week ending February 3, 1906:

Field, J. G., ordered to the Bureau of Medicine and Surgery, Navy Department.

Chappelear, F. D., acting asst.-surgeon, appointed acting assistant surgeon from Feb. 28, 1906.

Nash, F. S., surgeon, detached from the *Oregon* and ordered to the *Rainbow*.

Public Health and Marine-Hospital Service.

List of changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ending Feb. 28, 1906.

Pettus, W. J., assistant surgeon-general, granted leave of absence for one month, from March 1.

Magruder, G. M., surgeon, on expiration of leave of absence to proceed to Portland, Ore., and assume command of the service.

Nydegger, J. A., P. A. surgeon, to proceed to Perth Amboy, N. J., for special temporary duty, on completion of which to rejoin station at Stapleton, N. Y.

Cofer, L. E., P. A. surgeon, granted one day leave of absence under Paragraph 189 of the Regulations.

Korn, W. A., P. A. surgeon, granted leave of absence for fourteen days from March 2.

Long, J. D., P. A. surgeon, granted seven days' leave of absence in December, 1905, under Paragraph 191 of the Regulations.

Burkhalter, J. T., P. A. surgeon, on being relieved by Asst.-Surgeon R. D. Spratt to proceed to Ellis Island, N. Y., reporting to the medical officer in command for duty.

Spratt, R. D., asst.-surgeon, relieved from temporary duty at Mobile, Ala., and directed to proceed to Brunswick quarantine station and assume command of the service, relieving P. A. Surgeon J. T. Burkhalter.

Delgado, J. M., acting asst.-surgeon, granted four days' leave of absence from February 13, under Paragraph 210 of the Regulations.

Kurtz, W. E., acting asst.-surgeon, granted leave of absence for thirty days from January 1 on account of sickness.

Richardson, N. D., acting asst.-surgeon, granted leave of absence for fourteen days from January 27, on account of sickness.

Safford, M. V., acting asst.-surgeon, granted three days' leave of absence from February 17, under Paragraph 210 of the Regulations.

O'Gorman, T. V., pharmacist, relieved from duty at New Orleans, La., and directed to proceed to Memphis, Tenn., reporting to the medical officer in command for duty and assignment to quarters.

Scott, E. B., pharmacist, granted two days' leave of absence from February 21, under Paragraph 210 of the Regulations.

BOARD CONVENED.

Board convened to meet at the Bureau, Washington, D. C., February 24, for the purpose of making a physical examination of an officer of the Revenue Cutter Service. Detail for the board: Assistant Surgeon-General W. J. Pettus, chairman; Assistant Surgeon J. W. Trask, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine-Hospital Service, during the week ended March 2, 1906:

SMALLPOX—UNITED STATES.

California: Los Angeles, Feb. 10-17, 5 cases; San Francisco, 12 cases.
Delaware: Wilmington, Feb. 17-24, 2 cases.
District of Columbia: Washington, Feb. 10-24, 9 cases, 1 death.
Florida: Jacksonville, Feb. 17-24, 5 cases.
Kentucky: Covington, Feb. 15-22, 1 case.
Louisiana: New Orleans, Feb. 17-24, 11 cases.
Maryland: Baltimore, Feb. 17-24, 7 cases.
Massachusetts: Boston, Feb. 17-24, 1 case.
Michigan: Ann Arbor, Feb. 17-24, 1 case.
Ohio: Cincinnati, Feb. 16-23, 2 cases.
Tennessee: Memphis, Feb. 17-24, 8 cases, 1 death.
Virginia: Petersburg, Feb. 1-26, 17 cases.
Wisconsin: Appleton, Feb. 17-24, 2 cases; Green Bay, 3 cases.

SMALLPOX—FOREIGN.

Africa: Cape Town, Jan. 6-20, 10 cases.
Canada: New Brunswick: Kings County, Feb. 18, present; Queens County, present; Sunbury County, present; York County, present; Toronto, Feb. 10-17, 2 cases; Winnipeg, 1 case.
Chile: Iquique, Jan. 20-27, 4 deaths.
China: Shanghai, Jan. 13-20, 1 case, 1 death.
Ecuador: Guayaquil, Jan. 28-Feb. 4, 5 deaths.
France: Paris, Feb. 3-10, 11 cases.
Gibraltar: Feb. 4-11, 5 cases, 2 deaths.
Great Britain: Bristol, Feb. 3-10, 1 case.
Greece: Athens, Jan. 22-Feb. 5, 5 cases.
India: Bombay, Jan. 23-30, 10 deaths; Calcutta, Jan. 13-20, 55 deaths; Karachi, Jan. 21-28, 9 cases, 3 deaths; Madras, Jan. 20-26, 22 deaths; Rangoon, Jan. 13-20, 38 deaths.
Italy: General, Feb. 1-8, 33 deaths; Rome, Dec. 16-23, 1 death.
Russia: Moscow, Jan. 20-Feb. 3, 12 cases, 1 death; Odessa, Feb. 3-10, 23 cases, 1 death; St. Petersburg, Jan. 27-Feb. 3, 4 cases, 3 deaths.
Spain: Barcelona, Feb. 1-10, 5 deaths; Seville, Jan. 1-30, 11 deaths.
Turkey: Alexandretta, Jan. 27-Feb. 3, 20 cases, 4 deaths; Constantinople, Jan. 28-Feb. 11, 11 cases.

YELLOW FEVER—FOREIGN.

Cuba: Habana, Feb. 11, 1 case.
Ecuador: Guayaquil, Jan. 28-Feb. 4, 9 deaths.

CHOLERA—FOREIGN.

India: Calcutta, Jan. 13-20, 43 deaths; Madras, Jan. 20-26, 2 deaths.

PLAGUE—FOREIGN.

India: General, Jan. 13-20, 4,652 cases, 3,938 deaths; Bombay, Jan. 23-30, 62 deaths; Calcutta, Jan. 13-20, 32 deaths; Karachi, Jan. 21-28, 7 cases, 6 deaths; Madras, Jan. 20-26, 3 deaths; Rangoon, Jan. 13-20, 23 deaths.
Russia: Province of Astrachan, Dec. 25-Jan. 2, 8 cases, 5 deaths.

Medical Organization

Good Conditions in Texas.

DR. DAVID R. FLY, Amarillo, Texas, one of the councilors of the State Medical Association of Texas, under date of February 23, writes:

> "I find that Dr. McCormack's system of holding public meetings is a marvelous success. I find that the securing of the interest and co-operation of the intelligent laymen to be a strong factor in the lining up and settling of local animosities among the profession. It is remarkable how quick the intelligent public seem to grasp the situation and declare themselves ever ready to lend their support and co-operation in all of our legitimate reforms. I have been very agreeably surprised in the amount of interest and sympathy shown to me in the trials and tribulations of my councilor work by the thoughtful and progressive laymen."

Judging from newspaper clippings that have been sent us from Dr. Fly's district, he is one of the active councilors and is doing much good, not only in organizing societies in his district but in stimulating them to active work. He follows the lead of Dr. McCormack in having meetings to which the public is invited, which are evidently doing good, developing a better feeling between the public and the profession. Undoubtedly this is an excellent thing to do. What is needed to-day is for the profession and the public to get closer together, and for those who write in the newspapers on medico-sociologic subjects to know more of what the profession is doing. One of the best ways to bring about this better feeling is by having these open meetings, allowing some one to represent the public on the program.

Society Proceedings

BOSTON MEDICAL LIBRARY MEETING.

Held Feb. 14, 1906.

DR. GEORGE W. GAY in the Chair.

The Sanitary Hygiene of the Japanese Army.

CAPTAIN CHARLES LYNCH, Asst. Surgeon, U. S. A., was assigned as medical observer in the recent Russo-Japanese war, and was with the Japanese eleven months, both in Japan and in Port Arthur.. He described the organization of the Japanese army, with its active force, in which each man serves three years, and its reserve force. There is a ministry of war with several departments, of which the medical department is one, co-ordinate with the others. The unit is the division. Usually there were three divisions to an army. Each division maintained its communications with home when in the field. There is no quartermaster's department. The system proved a good one in war. Large numbers of men were sent forward at once, fully equipped.

The medical personnel consisted of military surgeons, men who make a specialty of the subject and who make preparations for war in time of peace. These are on the active list, and ten are assigned to each regiment. This is too many for times of peace, but not enough for war. Therefore, there is a reserve medical staff. These men must have seen actual service, but practice at their homes, except during the maneuvers held regularly every year. These reserve medical officers did well. At the outbreak of the war the active list were assigned to administrative duties. The demand for reserve men was so great that civilians were needed. These men passed an

examination and a service of four months in a hospital. They were to be employed in hospitals only, but this was not always possible, and hence their service was not wholly satisfactory. Reasons for this were that they asked for things not usually provided, were not hardened to camp life and were not respected by the troops as were the regular active and reserve surgeons. In spite of this large medical staff located at the front, along the lines of communication and at the bases, there were not enough.

The surgery of Japan is not strictly up to date. There is no great need of it. Japanese medical students rarely study surgery abroad, but they do give much attention to pathology and bacteriology. The surgeons always do things the easiest way. Confusion reigns in the operating rooms. They make large use of the microscope, however, and use medicines freely. By the offer of a good salary they try to attract to the regular active list good men, and they are given adequate rank to secure a right to their opinions. At the head is a surgeon with the rank of lieutenant general. The chief executive is a major general, being one of three in an army. Thence on down the surgeons of a regiment rank as captains. Each of these men must have spent at least one year in the Army Medical School. Here they are encouraged by special courses to become specialists along some particular line. They are allowed to do some outside work as consultants. Promotion is partly by selection. The reserve surgeons are promoted on proof of ability. They are about the equals of their brethren in civil life.

Apothecary officers are graduates of a college of pharmacy. Their highest rank is colonel. There were large numbers of them in the war and they did good work.

There is no hospital corps. At home civilians are hired. In the regular army, men are instructed in hospital work in each company. These soldiers were the chief nurses and they were well disciplined, though not much trained. They did well at the first. Female nurses are practically confined to the Red Cross. Some regular officers were detailed to attend to matters requiring immediate expenditure, among them being a few line officers. In time of peace four men in each company are trained as bearers.

The Red Cross of Japan, which renders voluntary aid, is the best in the world. It has over a million supporters and an income of more than 8,000,000 yen. It furnishes mainly personnel and not materials. Its work is wholly at the bases and along the lines of communication, hospital ships, etc. Each relief detachment consisted of two physicians, one pharmacist, two chief nurses and twenty nurses or attendants. There were 152 such detachments, thirty-two being along the lines and in Korea, thirty-eight in the great army hospitals and the rest scattered. At the end of 1905 they had 4,700 male and female nurses and attendants and had expended over $2,500,000. Their nurses are the best in Japan, though not equal to ours.

The Ladies' Volunteer Nurses' Association supplemented the Red Cross. Germany, too, aided. Much medical advice by prominent men in the profession outside of the army was offered free and gladly accepted. Many men, professors in the medical schools and of like standing, acted as consultants.

All matters pertaining to the health of the army, whether sick, wounded or apparently well, were made subjects of strict rules. Most of the medical supplies were prepared at Tokio, sent to Dalny and thence forwarded. The quality was carefully inspected and noted, being determined by frequent analyses. Transportation was ably maintained. Hospital buildings were erected very rapidly. Contracts for such buildings are made with all the specifications to be fulfilled if they are needed and only two or three days are necessary, therefore, for their practical completion.

The Japanese appreciate the importance of hygiene, and public sentiment supports the enforcement of strict rules. Whoever comes home from the front suffering from a preventable disease is disgraced. They maintain three requirements—physical fitness, education and supervision. The physical standard is high, yet few are rejected.

Sanitary instruction of officers is not necessary. They are all informed, having learned in schools and colleges. A pamphlet, "Health Rules for the Use of Soldiers in Time of War," is provided for the common soldiers, three or four to every company. They are told of the risks and an appeal is made to their patriotism. There are directions as to cleanliness, physical training and exercise. They have a hard drill, including much running. Special training in sanitation is given the officers, who have executive functions in these matters as well as advisory ones. The division chief surgeons are the real chief inspectors. The army chief surgeons follow them up and civilian specialists are often called in. Boards of health are established, who seek to rid the army of the unfit. Even field hospitals are equipped with microscopes and laboratories far toward the front. Typhoid fever was less common and dysentery more frequent. There were many diseases common among the Chinese of Manchuria, like cholera and malaria, which were thus kept out of the Japanese camps.

The soldiers were well fed. Rice was the bulk of the ration, being brought from Japan. Little meat, plenty of fruit, sometimes barley in place of rice, some saké and tobacco—the total ration being capable of 2,580 calories. The army is better fed than the people at home. Good water is always sought, analyzed frequently, both chemically and bacteriologically, and in a great majority of cases is boiled before being used—sometimes twice boiled. This boiled water was conveyed in carts holding sixty liters, two for each company. Some use was made of special tablets for purifying the water, but unsuccessfully. More valuable were filters, by which means they did do something in cutting out bacteria. Once the water supply was selected, every unauthorized person, whether native or soldier, was kept away from it.

In the barracks earthen jars were provided for the dejecta, regularly cleansed. In Manchuria large pits were provided. The Chinese were everywhere very filthy. The habits of the Japanese were good. Saké rarely made them drunk. There was little license. Bathing was common. They took good care of their feet, though their shoes were very bad. The best of rules were made and enforced. A monthly physical examination of the soldiers was made. They tried to prevent the water-born diseases and were most successful. Such patients were isolated to avoid contact as carefully as if they had smallpox. They were screened, carbolic acid was used freely, and also antiseptics for hands and dishes. Special precautions to keep flies from meats and from bedpans were taken. As fast as necessary they were sent back toward the base.

Typhoid fever and dysentery are endemic in those regions, but the Japanese had only one-sixth as many cases as the Russians. This, too, in spite of the fact that they made large use of the Chinese houses. Infection from urine was not considered or proved to be of great importance. There was a constant use of creosote pills, the boxes of which were marked: "To defeat the Russians, take one pill three times a day." Typhus is always present in Manchuria and was isolated in the same way. Beriberi was the great and terrible scourge of the Japanese. Much study was devoted to it and three different germ causes were discovered. None of them was proven to be *the* cause. It is not promoted by any special diet, but seems to be like typhus, taking its origin in crowded conditions. It was the cause of 40 to 50 per cent. of all the sickness in the army, and often preceded other diseases. Smallpox was rare because of compulsory vaccination. This is done in Japan within 100 days of birth, at the age of 12 or 13 and again at time of conscription. Two or three attempts are required, if necessary. In 1905 a general revaccination was practiced. Japanese virus is good.

Tuberculosis was common. It spread because they do not use modern methods of sanitation for its treatment. Diphtheria was not rare, but there was no measles, mumps nor scarlet fever. Recurrent fever occurred only rarely and was isolated. Erysipelas and tetanus were even rarer. Leprosy is frequent in Japan, but was not met in the army. Influenza was common, but not severe. Manchurian fever seems to be a combination of influenza and typhoid. Influenza was not isolated. Cerebrospinal fever and malaria were rare. There were few venereal cases. Prostitutes were segregated and regularly examined, as in Japan. Trachoma, so common in Japan, was not met in the field. As a whole, the medical department did remarkably well. The records made are very complete and sometime they may be given to the world.

In December, 1905, it was reported that so far in the war there had been killed in action 43,219; wounded in action,

153,673; missing, 5,081; injured not in action, 16,456; sick or died from sickness included 203,207, with 17,860 cases of contagious diseases besides. This makes the disability from wounds and from disease about equal—a very remarkable result.

The medical methods employed are much like ours. They are prone to allow patients to sit up, which was especially bad for the beriberi hearts. The mortality from typhoid was 7 to 10 per cent.; from dysentery, 15 to 17 per cent. Most of the wounds were from rifle balls, though the number from shells, especially shrapnel, was unusually large. Hand grenades, too, were the causes of many terrible wounds. Bayonet wounds constituted not even 1 per cent. of the total. The proportion of killed to wounded was as 1 to 4, and of the wounded 16 per cent. died. Bone wounds suppurated almost invariably. They had a bad "first aid" package—compresses were small, the bandage was insufficient and the cloth cover was not impervious to water. There were few deaths from primary hemorrhages, but many frost-bites. To summarize: Their success seems due to good diagnosis, Red Cross aid, medical skill, prompt aid, no confusion, good preparation in time of peace, large personnel, free expenditure of money, good hygiene and readiness to learn by experience.

NEW YORK PSYCHIATRICAL SOCIETY.

Regular Meeting, held in New York, Dec. 6, 1905.

Insanity as a Result of Hysterotomy and Oophorectomy.

The paper on the above subject, read by Dr. Graeme M. Hammond, New York, appears in this issue of THE JOURNAL, pages 713 and 714.

DISCUSSION.

DR. G. H. KIRBY said that he has seen eight cases in which the psychoses seemed to be more or less directly connected with operations on the generative organs. In four of these cases it was impossible to determine whether the ovaries had been removed; in the remaining four they were undoubtedly removed.

DR. A. MEYER doubted whether it is wise to say that only congenital conditions predispose to the psychoses since it is probable that individuals with a fair start in life can undergo constitutional changes which will predispose to a mental breakdown. As a rule, the nature of the psychoses correspond to the constitutional make-up of the individual.

DR. M. C. ASHLEY thought that it is impossible to state definitely that the psychoses in any given case is the result of an operation. He has seen a number of instances of insanity which were attributed to operations on the reproductive organs, and he has also seen many operations performed that were not followed by a psychosis. On the other hand, profound mental shock has been attributed as a cause of psychosis. Why then, says Ashley, should not all patients sustaining similar shocks and patients operated on, develop a psychosis unless there is some inherent weakness or predisposition to insanity in those who do become insane.

DR. L. P. CLARK thought that the occurrences of insanity after operation indicates the existence of a primary constitutional defect, and that the exhaustion, fatigue, and worry previous to the operation can not be regarded in any other light than as exciting factors of insanity.

DR. C. F. MACDONALD coincided with the position taken by Dr. Hammond with reference to the etiologic importance of heredity in these cases. He thinks that it is rare, indeed, that a surgical operation of so serious a nature as oöphorectomy causes insanity, except in individuals who have an unstable mental and nervous organization, whether inherited or acquired. Only in exceptional cases does insanity follow surgical operations or severe injury, even injuries of the head. Physicians are too much in the habit of seeking for some incident in the life of the individual which may be assigned as the cause of the mental disorder. MacDonald says that he always looks for predisposing and not exciting causes. Alcohol, for example, rarely causes insanity, except in persons who are predisposed thereto. There must be a predisposition to the disease before the so-called exciting causes can become operative. The only way in which exciting causes can become operative is by undermining the general health and thus bringing about a condition of malnutrition of the brain which predisposes the individual to a true psychosis.

DR. W. HIRSCH does not think that the ovaries have any physiologic function, except the sexual function; hence removal of the ovaries can not produce insanity any more than any other operation can. Of course, the shock following oöphorectomy may be much greater than that following other operations, but the psychosis following it holds that traumatic psychosis is a clinical entity, one which can be diagnosed readily. He agreed with the previous speakers that a perfectly normal brain can not acquire psychosis after any operation, unless it is an organic trauma to the brain, or that there exists a previous disposition to psychosis. He did not agree with Dr. Hammond that a normal man can ever become a paranoiac. The mind of a paranoiac never was a normal one, even if the paranoia did not manifest itself in early life.

DR. E. A. MACDONALD is convinced that operations on the uterus or ovaries have very little specific importance in the production of insanity. He has seen a few cases of postoperative insanity, but in these cases the insanity was due to the shock incident to the operation.

DR. A. M. HAMILTON agreed with the essayist and the previous speakers. He thinks that the profession has a duty to perform, that of educating or at least cautioning those members of the profession who not only wrongly associate neurosis and actual organic diseases, but psychosis as well, with various bodily ailments and defects.

Therapeutics

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns.]

Treatment of Eczema.

A correspondent writes that he has a patient, otherwise healthy, who is afflicted with eczema, but he does not state the variety.

INTERNAL MEDICATION.

In acute eczema—blue mass or compound cathartic pill, followed next morning by a saline laxative. Natural mineral waters are useful, such as the Hathorn, Carlsbad, Hunyadi Janos or Friedrichshall. When both iron and the sulphate of magnesium are indicated the following may be used:

℞.	Magnesii sulph.	℥ii	60
	Acidi sulphur. dil.	ʒii	8
	Ferri sulph.	℈ss	65
	Sodii chlor.		
	Tinct. card. comp., āā	ʒi	4
	Aquæ dest.	Oss	250

Filtra. Sig.: A tablespoonful before breakfast in a tumblerful of cool or hot water.

In case of renal derangement diuretics are indicated, and in gouty cases, colchicum and Vichy water.

When both diuretics and alkalies are indicated the following may be used:

℞.	Magnesii sulph.	℥ss	15
	Magnesii carb.	ʒi	4
	Tinct. colchii	ʒss	2
	Olei menth. pip.	m. ii	12
	Aquæ dest.	℥vi	180

LOCAL MEDICATION.

The following is a useful lotion:

℞.	Acidi carbolici	℈ ii	2 65
	Zinci oxidi	ʒi	4
	Glycerini	ʒii	8
	Aquæ calcis q. s. ad	℥viii	240

In this formula, when carbolic acid does not act favorably, dilute hydrocyanic acid may be substituted. Tragacanth mucilage may be used instead of glycerin, or both may be omitted and half the amount of lime water may be replaced by an equal quantity of elder-flower water.

℞ Acidi hydrocyanic dil. ..... ℥ss-ii 2-8
Zinci oxidi
Calamin, āā ..... ℥i 4
Aquæ calcis
Aquæ sambuci, āā ..... ℥iv 120

Or:

℞ Acidi carbolici ..... ℥ss-ii 2-8
Bismuthi subnit. ..... ℥i 4
Pulv. tragacanth ..... gr. xl 2 6
Aquæ calcis ..... ℥viii 240

WEEPING ECZEMA.

In the so-called weeping eczema the following is useful:

℞ Tinct. opii ..... ℥ss 15
Liquoris plumbi subacetatis dil q. s. ad. ℥viii 240

To this may be added glycerin, boric acid to saturation, zinc oxid or other powder to be left on the skin as a deposit; or from half to one ounce of the tincture of camphor, if this drug is well borne and if a decided antipyretic effect is desired. A saturated solution of boric acid to which has been added 2 per cent. or more of glycerin or tragacanth mucilage is an excellent application in moist eczema and in the suppurating forms.

Hyde states that for the subacute and indolent stages mildly stimulating and stronger antipyretic lotions containing tar, carbolic acid, menthol, camphor, chloral and alcohol may be used, but that they should be tried cautiously and diluted at first. They generally give best results when applied for a few minutes at a time, several times a day.

In some acute inflammatory cases, Lassar's paste gives good results:

℞ Zinci oxidi
Amyli, āā ..... ℥ii 8
Petrolati ..... ℥iv 15

To this is generally added from 3 to 10 grains of salicylic acid.

Another paste which gives good results is Duhring's paste:

℞ Zinci carb. ..... ℥i 4
Acidi salicylici ..... gr. x 65
Petrolati ..... ℥ii 8
Cerat. plumbi subacetat. ..... ℥vi 24

Hyde and Montgomery recommend the following:

℞ Bismuthi oxidi ..... ℥ss 2
Vaselin
Olei olivæ, āā ..... ℥ss 15
Ceræ alb. ..... ℥iss 6
Olei rosæ q. s.

Stelwagon states that diachylon ointment, if well and freshly prepared, is soothing and mildly astringent, but that it is difficult to obtain a good preparation. If this ointment is not fresh, irritation often follows its application.

Unsalted Diet in Scarlet Fever.

Dufour, Pater and a number of other physicians have been studying the effect of restriction of salt in the diet of scarlet-fever patients. They find that it is well tolerated and protects against kidney trouble as well as a strict milk diet. If there is a tendency to albuminuria at first, it soon subsides. The children all increased in weight on the mixed unsalted diet as soon as the fever declined. The general impression was that the course of the disease was shortened and the patients rendered more resistant to intercurrent infections and complications. Guinon, in a discussion of the subject at the Paris Société des Hop., February 8, stated that he made a practice of putting scarlet-fever children on raw meat, as well as those with slow-healing ulcerations, suppurations and necrosis. The raw meat seemed to exert a remarkably favorable action from the first, especially in the ulcerations that follow the phlegmons of scarlet fever or the necrosis of the palate. The so-called "unsalted diet" is not altogether without salt. A small, carefully measured amount is allowed and its elimination supervised.

Quinin and Arsenic in Syphilis.

Assuming that syphilis is a disease caused by a protozoön, Max Kahane of Vienna (*Wiener klin. therap. Wochft.*), suggests its treatment with the three most effective agents against protozoa: quinin, methylene blue and arsenic acid in suitable doses. The treatment, he suggests, would be applicable only to the primary and secondary forms as active living spirochetes have not yet been demonstrated in tertiary syphilis.

Treatment of Snake Bites.

A correspondent in the *Münch. med. Wochft.* for January 2, writing from Vienna, describes the treatment of snake bites generally practiced in Austria. Elastic constriction is applied to the limb above the bite, and from 20 to 30 c.c. of a solution of chlorinated lime is injected into and around the wound. After it has been injected the ligature is removed and stimulants given, especially alcohol. One part of chlorinated lime is dissolved in twelve parts of water for the mother solution, which is diluted with nine parts water for the injections. The writer states that this treatment has repeatedly established its efficacy, especially for viper bites, although antivenin is always used when procurable.

The Indications for the Use of Digitalis.

Eichorst, in an abstract in *American Medicine*, states that the weakness of the cardiac muscle from any cause, whether due to disease of the cardiac valves, of the myocardium itself, chronic diseases of the respiratory organs, atrophic kidneys, acute infectious diseases or poisons, is the chief indication for the employment of digitalis. He disapproves, however, of the use of digitalis in fibrinous pneumonia and in uremia, except in that it improves the cardiac muscle and increases the excretion of urine. He prefers the powdered digitalis to all other preparations. He regards the cumulative action of digitalis as in a large part imaginary, although anorexia, nausea and vomiting may occasionally occur. In many cases before prescribing digitalis he sends the patient to bed and orders a milk diet, and within three days begins the use of digitalis. If for any reason the pulse rate falls below 60, he suspends the digitalis at once. The delirium which is occasionally noted after the administration of digitalis when given in edematous conditions he regards as due to autointoxication, the result of too rapid absorption of the liquid.

Silver Nitrate for Chronic X-Ray Ulcers.

Mr. W. C. Fuchs, a former *x*-ray operator, who has suffered for years with chronic ulcers caused by exposure to the *x*-ray in his business, suggests that we mention a few points in his experience for the benefit of others who may have failed to find relief. All other methods of which he could in any way learn were tried without more than temporary and partial benefit. Dr. H. Roberts, St. Louis, suggested to Mr. Fuchs the use of silver nitrate, in full strength, one drop being applied and allowed to spread over such an area as it would cover. Dr. Roberts had used this on his own hands with success, and Mr. Fuchs found it efficacious. Ulcers which had persisted for six years have healed and others are in process of healing. The skin is becoming normal. Mr. Fuchs does not know of this remedy having been tried by others. We believe that some others have tried it without such pronounced success. It may not be as efficacious for every one.

Treatment of Syphilis by Hypodermic Medication.

The treatment of syphilis by hypodermic medication, according to Campbell Williams, in the *Clinical Journal* (London), may be divided into the subcutaneous, intramuscular and intravenous methods. The advantages claimed for this method of treatment are, first, accuracy and regulation of the dose of mercury administered; second, rapidity of action; third, certainty of absorption; fourth, non-impairment of the digestive functions; fifth, the comparative freedom from the grosser forms of stomatitis; sixth, the mitigation of intestinal disturbances. According to some authorities the use of insoluble mercurial preparations has in some cases been followed within a few moments of the operation by pulmonary infarction. The explanation for this occurrence is probably made on the basis that the injection was intravenous rather than intramuscular, owing to the fact that the point of the needle penetrated within the vessel itself. Williams guards against this occurrence by taking the precaution of either plunging the needle in separately or detaching the syringe from the needle after it has been inserted in order to see whether or not any venous blood escapes through the needle before injecting the insoluble salt.

This procedure is after the experience of Gottheil, of New York.

According to the recorded experience of Lambkin, after the injections of 50,000 doses of metallic mercury suspended in the combined equal volume of lanolin and liquid paraffin no untoward results have followed.

Calomel is sometimes used hypodermically in the treatment of syphilis, although records vary to a great extent as to its usefulness. Some state that the effects of this preparation pass off quickly and that relapses are common after its use. The drawbacks to its employment, as stated by Williams, are the presence of pain after the injection; abscesses which may occur in about 1 per cent. of the cases, regardless of extreme precaution with the injection; swelling and induration of the parts in a day or two after the injection; nodes, varying in size from an olive to that of an orange. These nodes disappear, however, in a few weeks, as a rule, but some persist for six or even twelve months. Whatever may be the preparation used hypodermically, before starting on this method of treatment one should always ascertain whether or not his patient is a "bleeder," as a hemorrhagic diathesis is an absolute contraindication to mercurial injections, either owing to the formation of local hematoma or to the setting up of hemorrhage from the urinary tract. The state of the kidneys must be looked into, and if there is any evidence of the lack of proper elimination unusual care must be exercised in the administration of mercury in whatever form. This is especially the case when the mercurial preparation is introduced, either intramuscularly or intravenously, since the renal apparatus is the principal channel by which the mercury thus introduced is carried off. Consequently Bright's disease contraindicates the use of mercurial injection. The same rule holds good in the treatment of diabetic patients. The presence of tuberculosis is also a contraindication. The mouths of all patients should be carefully watched as soon as the treatment is begun, special care being given to the gums, as mercury frequently is blamed for conditions in the mouth for which it is not responsible.

INTRAMUSCULAR INJECTIONS.

According to this author, the intramuscular injection has supplanted the subcutaneous method. The most convenient location for the administration of the mercury is the gluteal region, using the right and left side alternately. The best location for the puncture should be above the level of the great trochanter, which is supposed to be the region of least sensation. The skin should be properly cleansed by antiseptic measures before the needle is introduced, but it should not be irritated more than necessary. The needle, of course, should be thoroughly sterilized immediately prior to its introduction by being held for a few seconds in the flame of a spirit lamp. After it has cooled it may be plunged into the muscle tissues at right angles until the proper depth has been reached. This depth, of course, varies with the amount of subcutaneous fat present, usually from three-quarters to one inch below the surface of the skin. The precautions above stated should be observed in the injection of the emulsions of the insoluble salts to see that the point of the needle is not engaged in the lumen of a vein. This is not so necessary when the soluble solutions are employed, since they may be injected intravenously without the danger of causing pulmonary infarction. (It might be added that it is absolutely necessary that air be entirely excluded from the barrel of the syringe before introducing the injection.)

After the needle is withdrawn the site of the injection should be gently pressed by the finger for a few moments and light massage given in order to diffuse the fluid in the tissues. The puncture wound is then sealed by means of antiseptic wool saturated in collodion.

The author enumerates quite a number of the preparations of mercury, the most important of which are as follows: The soluble preparations are hydrargyri lactas, hydrargyri succinate and of the insoluble mercury which should be administered in liquid paraffin, oleum olivæ or lanolin and liquid petrolati, the following are the most important: Metallic mercury, hydrargyri oxydum flavum, hydrargyri salicylate, hydrargyri tannate, hydrargyri benzoate, hydrargyri subchloridum. The lactate of mercury which is soluble in about 1 in 7 parts of water is one of the least irritating of all the mercurial salts. It is recommended that it be instilled as an intramuscular injection in doses of from gr. 1/4 (.015) to gr 1/2 (.03). The author, however, speaks of one of its drawbacks, which is the rapidity with which it is eliminated from the body, consequently the injections must be frequently repeated. On the other hand it is to be recommended strongly on account of its safety and comparatively painless after-effects.

Metallic mercury is administered in the form of gray oil. The formula for making up this combination is as follows:

℞. Hydrargyri (metallic) 3ss 2
Unguenti hydrargyri.....gr. ii
Liquidi petrolati .....3i 4 } 12

M. Sig.: From 1 to 2 minims at a dose.

Lambkin recommends the following combination:

℞. Hydrargyri (metallic) .....gr. xv 1
Liquidi petrolati (carbolized 2 p. c.)..3iiss 10

M. Sig.: Ten minims injected hypodermically once a week.

The yellow oxid of mercury may be used suspended in oil, but the injections with this preparation are painful and no special advantage can be claimed for it. Gottheil recommends the salicylate of mercury as the best preparation in the treatment of syphilis hypodermically. He recommends the following combination:

℞. Hydrargyri salicylatis.....gr. xv 1
Liquidi petrolati 3iiss 10

M. Sig.: From 3 to 10 drops injected once a week or once every two weeks.

Gottheil claims that this is a non-irritant preparation and that only slight stiffness is noted on the day following the injection. He also claims that it is as effective as any of the insoluble salts of mercury. The benzoate of mercury is insoluble in cold water and is, therefore, classified as an insoluble salt. It may be given, according to some authorities, in the following combination:

℞. Hydrargyri benzoatis
Sodii chloridi, āā.....gr. v } 30
Aquæ dest. 3i 30

M. by dissolving with the aid of heat and then filter. Sig.: Ten minims once or twice a week.

In the use of calomel it is said that great pain not infrequently follows the injection. It is regarded by Williams, however, as the remedy *par excellence* for endarteritis and its sequelæ. It is given best by suspending it in sterilized olive oil, combined as follows:

℞. Hydrargyri chloridi mitis.....gr. v } 30
Olei olivæ 3iss 6

M. Sig.: From 10 to 15 minims introduced hypodermically.

The succinimid of mercury may be given as follows:

℞. Hydrarg. succin. 3ss 2
Cocainæ hydrochlor.....gr. x } 65
Aquæ dest.....3iss 45

M. Sig.: Fifteen drops hypodermically twice a week.

Medicolegal

Presumption That Credit Was Given to Husband.

The Supreme Court of Alabama says that the evidence in Montgomery Street Railway Co. vs. Smith, a personal injury case brought by the latter party, a married woman, did not show whether the credit for the doctor's bill or medical attendance was given to the husband or to the wife, and in the absence of proof the presumption was that the credit was given to the husband, so that the wife would not be entitled to recover anything therefor.

Hysterical Condition of Witness.

The Supreme Court of Arkansas says that in the case of Bucker vs. State, a prosecution of the first named party for seduction, the defendant advanced as grounds for a continuance that the prosecuting witness (the seduced female) "had long been subject to some nervous malady causing hysterics or mental delirium, and had recently suffered an attack from same, and was not, at the time of calling of this case for trial, recovered from such attack; that the importance of the case would necessitate her remaining on the witness-stand an indefinitely long time, and undergo vigorous cross-examination,

which would excite the sympathy of the jurors for her and greatly prejudice the defendant's defense; that in fairness to him he ought not to be compelled to cross-examine the prosecutrix in her present physical condition." But, the court says, this stated no grounds for continuance of the case. The court could not assume in advance that the woman's physical condition, nor the character of the cross-examination of the defendant's counsel, would be such as to excite the sympathy of the jury and to prejudice them against him. If so, the fear of exciting sympathy for the wronged would forbid the courts from bringing to speedy trial persons accused of most any crime. Moreover, the determination of that question fell fairly within the sound discretion of the trial court, and as no abuse of it appeared the Supreme Court would not disturb its exercise.

Some Points from an Extended Litigation for Fees.

The Supreme Court of Missouri, Division No. 2, says, in the case of Logan vs. Field, that suit was instituted before a justice of the peace March 24, 1896, on an account for $160 for services rendered the defendant by the plaintiff, as a physician. The plaintiff recovered, before the justice, judgment for $160, the full amount of his claim. The defendant then took the case, by appeal, to the Circuit Court of Jackson County, where, on trial, de novo (anew) before the court and jury, the plaintiff again recovered judgment for $160. From this judgment the defendant appealed to the Kansas City Court of Appeals, where the judgment was reversed and the cause remanded for further trial. Thereafter, on Nov. 17, 1901, the case was again tried in said Circuit Court, and the plaintiff recovered a verdict and judgment for $50. After unavailing motions for a new trial and an arrest of judgment, the plaintiff appealed from this judgment to the Kansas City Court of Appeals, and thereafter, on his motion, that court transferred the case to this court, where the $50 judgment is affirmed.

As to the facts in the case: The Supreme Court says that the plaintiff was a practicing physician, making a specialty of diseases of the nose, throat and ear. He had treated the defendant in the year 1890, and his bill for that service was paid. In October, 1892, the defendant applied again for treatment. The trouble he was suffering from in 1890 was different from that of 1892. In the first instance he had an enlargement or thickening of the mucous membrane or lining of the nasal cavity, of which the plaintiff cured him. In 1892 the plaintiff found that he was suffering from inflammation of the turbinate bone, together with inflammation of the frontal sinus. The plaintiff, hoping to relieve the inflammation, and successfully treat the disease without an operation, gave him the treatment sued for, telling him that he could not state whether a cure would be worked, and declining to guaranty that such cure could be effected.

It appeared from the plaintiff's testimony that the defendant was benefited; that the case grew better; that the treatment administered to relieve the congestion in the canal leading to the sinus was successful, but that, from time to time, the defendant would catch cold and violently blow his nose, thus keeping up the inflammation which tended to close the connection between the sinus and the nasal cavity. The propriety and correctness of the treatment administered by the plaintiff was supported by several physicians, and the defendant's expert testified to the effect that the plaintiff had been pursuing correct practice in endeavoring to work a cure without performing an operation. Nor was there any contention on the part of the defendant that he had been in any way injured by the plaintiff's treatment, though he did testify that he did not think he was benefited thereby.

The result of the litigation is as above stated. The Supreme Court thinks that on the trial last appealed from the case was very fairly presented to the jury by the instructions taken altogether. Among the instructions given on behalf of the plaintiff one was that if the jury found and believed from the evidence that the plaintiff rendered the services sued for to the defendant and at his request, and that no price was fixed or agreed on, then the law implied a promise from the defendant to pay the plaintiff for such services what the same were reasonably worth, if anything; and that this was true without regard to whether the treatment was beneficial to the defendant. Other instructions qualified the words "reasonably worth" by adding "according to the usual charges of the medical profession in this vicinity." Furthermore, the jury was instructed that, if the plaintiff knew that the disease from which the defendant was suffering was in the frontal sinus, and the plaintiff had reasonable cause to believe in the exercise of ordinary care and skill that the same would yield to treatment without an operation, then he had the right to treat the defendant for such trouble until such time as he became reasonably certain it was necessary to perform such operation; and he was entitled to recover for such services what the same were reasonably worth, if anything, without regard to whether the defendant was benefited by such treatment or not.

On the other hand, the jury was instructed, on behalf of the defendant, among other things, that the defendant had the right to expect good faith from the plaintiff, and to rely on the supposed superior knowledge of the plaintiff to discover, determine and advise what course should be pursued in his case. If the treatment sued for was worthless to the defendant, and if the plaintiff then knew, or ought as a man of his profession to have known, of the uncertainty or probable uncertainty of a cure of the defendant from the treatment administered, and the defendant went for and received such treatment, and was encouraged by the plaintiff to receive the same, or because the plaintiff failed to inform him of the uncertainty or probable uncertainty of a cure from such treatment, the verdict should be for the defendant. The plaintiff had no right, even if in the best of faith, to render service of no substantial benefit to the defendant and charge therefor, if he himself had doubt, or as a reasonably prudent and competent physician ought to have had doubt in his mind, of such service being a successful treatment of the defendant's trouble, unless he fully informed the defendant of such doubt, and the defendant, with such information of the uncertainty of the success of the treatment, afterward went for and received the same. If the trouble with which the defendant was suffering, and for which he sought the plaintiff's professional aid, was in the frontal sinus over the defendant's right eye, and an operation was then necessary to relieve the trouble of the defendant, and the plaintiff knew this, or could have known it by the exercise of reasonable skill and effort, then his treatment of the plaintiff was unskillful and improper, and he ought not to recover any amount in this action. The plaintiff could not recover for the service rendered in this case merely because he may have performed such service with the permission or even at the request of the defendant and avoided giving the defendant an express guaranty of a cure.

Current Medical Literature

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

February 24.

1 *Clinical Observations in Exophthalmic Goiter. G. Dock, Ann Arbor, Mich.
2 Neurasthenia Treated by Two General Physicians, One Homeopathist, One Quack, One Osteopath, One Pregnancy, Three Ophthalmic Surgeons, Two Gynecologists, One Diagnostician, One Neurologist, One Resident Sanitarium Physician, and One Refractionist. G. M. Gould, Philadelphia.
3 *Uses and Abuses of the Free Dispensary. R. O. Kevin, Philadelphia.
4 Relation of Acid Fermentation in the Stomach to Neurasthenia. J. W. Robinson, Bozeman, Mont.
5 *Bacillus Chlorhydrici. E. Palier, New York.
6 Sanatorium Treatment of Tuberculosis. G. B. Kalb, Erie, Pa.

1. **Exophthalmic Goiter.**—Dock reports the results of his observations of 32 cases, 29 women and 3 men. The predisposing causes could rarely be discovered. In 12 of the patients previous diseases or nervous shock were noted a short time before the characteristic symptoms. In these cases goiter was the first symptom, but in 12 others a goiter was observed from three to thirty-seven years before the other symptoms came on. The thyroid gland was enlarged in all cases. In 26 a systolic murmur was audible over the thyroid. Tachycar-

dia was present in all but two patients, and in one of these it had been present before the observations began. Observations on the blood pressure showed striking differences. In some the pressure was high, up to 180 mm. Eye symptoms were absent in only three cases. Emaciation was a marked and striking symptom, in two cases amounting to almost or quite half the body weight. Diminution of hydrochloric acid in the stomach was observed in a number of cases, but hypermotility was often associated with this. Two of the patients died; one from complicating disease, the other with acute symptoms. Of the other cases, a number had chronic courses up to fifteen years. Emphasis is laid on the importance of the early diagnosis. Regarding treatment, rest is considered most important, with symptomatic treatment. Experience with some of the organic preparations and Roentgen rays are mentioned. Surgical treatment is recommended, with certain limitations.

3. **Uses and Abuses of the Free Dispensary.**—Kevin believes that one reason for the abuse of the free dispensary lies in the fact that it is to the interest of those connected with the institution to have a large service, also that while dispensaries continue to afford practice, experience, and reputation to young and old doctors and "something for nothing" to the general public, the number of patients will not diminish and physicians will always be applicants for vacancies. He divides those who patronize free dispensaries into four principal classes: 1, Those able but not willing to pay; 2, those who, not knowing a specialist, want to find one without being compelled to pay a specialist's fee; 3, poor, suffering unfortunates, who, either by drink, misfortune, ignorance or poverty, are forced to avail themselves of a dispensary's charity, and 4, hypochondriacs, who find, or try to find, relief from their fancied ailments in the different departments of a hospital dispensary.

5. **Bacillus Chlorhydrici.**—Under this name Palier describes a microbe which he isolated from the human stomach and cultivated. It is a small, slender, rod-shaped bacillus having slight motility. Its isolation is very difficult. It is Gram negative and aerobic. Spores could not be detected. It is found in hyperchlorhydria and chlorhydria. Palier says that ordinarily this is not a pathogenic microbe, but a physiologic one, aiding digestion. Under adverse circumstances, however, the germ, in conjunction with yeast, may be an important factor in the causation of simple ulcer of the stomach.

Medical Record, New York.

February 24.

7 *Problems in the Treatment of Pneumonia. E. Le Fevre, New York.
8 *Bier Treatment by Hyperemia. M. Breuer, Buffalo, N. Y.
9 *Chronic and Periodic Vomiting. D. Roberts, Brooklyn.
10 *Etiology of Eczema. J. C. McGuire, Washington, D. C.
11 A Few Suggestions in Reference to Consumption. L. Barkan, New York.

7. **Problems in Treatment of Pneumonia.**—Le Fevre declares that from the very beginning of the attack the physician's efforts should be directed toward controlling the toxemia and its effect. Care should be taken, however, that the treatment does not exhaust the patient. Unless contraindicated, Le Fevre uses saline cathartics freely during the early days of the disease. If the toxemia is exaggerated, the same external methods for causing sweating should be employed as those used in the treatment of acute uremia. He warns against the use of pilocarpin, but advises the use of hot drinks, liquor ammonii acetatis, and citrate of potassium. As there is generally kidney irritation in this disease, abundance of water is indicated. If there is nausea and vomiting so that the administration of water by the mouth is restricted, enemas of normal saline solution should be substituted. Venesection is indicated in those cases in which the patient seems to be overstimulated by the toxemia. Fresh air is necessary, but cold is not an essential element of the open-air treatment. Le Fevre advises keeping the room at a temperature of 65 F. In cases in which there is pain, opium or one of its derivatives, as a rule, has the best effect. He condemns the tendency to resort to nitroglycerin in cases in which cardiac failure is suspected. He advises two classes of stimulants to be used in cases of loss of vasomotor control: 1, Those acting on the medullary centers—strychnin, caffein, atropin and cocain; 2, those acting directly on the muscular tissue of the arterial system—digitalis, ergot and suprarenal extract. The action on the blood vessels of suprarenal extract of adrenalin chlorid is very rapid and energetic, but its effects are temporary. It should be used in the treatment of sudden vascular collapse. Le Fevre says that no case of pneumonia should be given up as lost until death actually takes place.

8. **Bier Treatment by Hyperemia.**—Breuer reviews a number of tuberculous cases treated by this method in Bier's clinic during sixteen months. In a long series of not selected cases the wrist showed a cure in 88 per cent., the elbow in 72 per cent., and the foot in 61.5 per cent. Breuer also discusses the application of this treatment to acute inflammatory conditions, such as tonsillitis, otitis media and tuberculous orchitis. Other affections suitable for treatment by hyperemia are septic wounds, fractures, arthritis, lymphangitis, hemarthrosis, neuralgia, neuritis and varicose veins.

9. **Chronic and Periodic Vomiting.**—Roberts discusses the difficulties that may attend the diagnosis of causation in chronic and periodic vomiting. He says that careful search of the entire body and all its functions may be necessary. He summarizes his deductions as follows:

1. Vomiting of a chronic type, following a gradually developed epigastralgia, from one-half to three hours after the ingestion of food, is attributable to peptic ulcer, gastric or duodenal.
2. Chronic vomiting that occurs from ten to fifteen minutes after food ingestion is attributable to stenosis of the cardia, nervous abnormality, cerebral lesion (occasional rather than chronic), or to protracted acute gastritis.
3. Copious vomiting ten or more hours after food ingestion indicates a muscular insufficiency; frequent repetition indicates a permanent lesion in the nature of a mechanical interference with the exit of food.
4. Vomiting in the night is particularly liable to occur in cholelithiasis, periodic hypersecretion, muscular insufficiency, and nervous abnormality.
5. Vomiting attempts when the stomach is empty indicate a cause other than a gastric lesion, either a reflex cause, a toxemia, a cerebral lesion, or a nervous abnormality.
6. Morning nausea and retching indicate either a beginning of pregnancy, alcoholism, pharyngitis, nephritis, or a nervous abnormality.
7. Periodic vomiting of clear gastric juice of normal or supernormal acidity in any considerable amounts indicates a secretory neurosis or an ulcerative lesion.
8. Vomiting as a sequel of headache, accompanied by severe nausea, but no gastric or abdominal symptoms, characterizes attacks of migraine; in a majority of cases eyestrain is the underlying cause.
9. Attacks of vomiting of sudden onset, with tinnitus, deafness, and vertigo, are attributable to disturbances of pressure in the internal or middle ear.
10. Periodic attacks of vomiting of sudden onset, associated with more or less severe gastric pain and nausea, retraction of the abdomen, obstinate constipation during but not preceding the attack, and freedom from abdominal tenderness, are suggestive of the spinal crises, idiopathic nervous vomiting, and lead poisoning.
11. Periodic attacks of vomiting after abdominal colic and constipation, with localized or general tympany, are suggestive of chronic intestinal stenosis.

10. **Etiology of Eczema.**—McGuire does not believe that gout, rheumatism and many other of the diseases referred to as factors predisposing to eczema have anything whatever to do either in causing the disease or in influencing it in any way after it has been established, only so far as any "run-down condition" of the general system makes the skin less resistant to irritation. Of course, some persons have skin that is susceptible to inflammation, which varies according to the nature of the irritant. McGuire believes that some time in the near future the term eczema will be limited to that form of cutaneous disease that is caused by some specific parasite acting on a vulnerable skin. He cites one case in which the tendency to the disease appeared to be transmitted to the offspring.

New York Medical Journal.

February 24.

12 Rheumatic Fever (Acute Articular Rheumatism). J. V. Shoemaker, Philadelphia.
13 *Cholecystectomy. J. F. Erdmann, New York.
14 Difficulties of Diagnosis and Operation in Diseases of the Biliary Tract. W. P. Carr, Washington, D. C.
15 Definition of Insanity. W. A. White, Washington, D. C.
16 Medicine at Oxford, 1905. C. N. B. Camac, New York.
17 Treatment of Joint Tuberculosis in the Open Air in a City Hospital. R. A. Hibbs, New York.
18 Acute Intestinal Obstruction—Mention of Illustrative Cases. E. W. Peterson, New York.
19 *Simultaneous Uterine and Extrauterine Pregnancy. H. N. Vineberg, New York.
20 Prostatic Albuminuria Not an Infrequent Cause of Error in the Diagnosis of the So-called Orthostatic, Postural, Physiologic and Cyclic Albuminuria. E. G. Ballenger, Atlanta, Ga.

13. **Cholecystectomy.**—Erdmann reports the results obtained in 27 cholecystectomies, complicated or not with other diseases and conditions, and draws attention to the fact that no waiting time for subsidence of infection, etc., was given any of these cases by doing a previous cholecystotomy, nor was local treatment advised. The worst cases of infection and most active invasions did fully as well, if not better, than those of lesser or practically no inflammatory activity.

Twenty-two of the 27 patients were females, the youngest being 27, the eldest 66. Four of the entire number were over 50 years of age. One was a male, aged 27. One patient gave a history of attacks from her tenth year, and one from her twelfth year. Five had histories of previous typhoid, about 20 per cent. of this series. In 13 no history of typhoid was obtainable, and 9 gave a negative history of typhoid. Two deaths occurred in this series, both in non-suppurative, but not in uncomplicated cases. The first patient, a woman, aged 40, a long-suffering patient whose condition was far below par, died from exhaustion in eight days. In this case it was necessary to do a choledochotomy for numerous stones in the common and hepatic ducts. The second patient was a male, aged 27, who vomited black matter after the operation from the moment he was placed on the cart in the operating room. He had 33 stones in a distended and elongated bladder, complicated with a diseased appendix containing 11 concretions. Typhoid bacilli were found in the bile.

Two pregnancies occurred, one five months, miscarriage in twelve hours after the operation. This woman had a temperature of from 99.5 F. to 104 F. for over a week previous to the operation. The other, who was in the seventh week of pregnancy, submitted to an operation for cholelithiasis and appendectomy without aborting. The appendix was removed in 16 out of the 27 cases, in several instances being markedly invaded. Eight patients had gangrene of one or more coats of the bladder. One was doubly perforated, contained two stones and a large abscess well walled off. In 5 cases the common and hepatic or both ducts were opened for stones. Although a history of jaundice was obtained in 12 cases, the jaundice in the remaining 7 is to be explained by the fact that stones were passed through the common duct before the operation in some of them, while in 2 or 3 pressure of exudate and distended bladder could be ascribed as the factor productive of jaundice. Twenty-two operations were for acute inflammatory conditions; all the patients recovered. One operation was for hydrops due to a large stone in the cystic duct, with another free in the bladder; one was done for a primary typhoidal perforation in the beginning of the sixth week of the disease, or rather the first week of convalescence. Erdmann describes his method of operating in detail.

19. **Simultaneous Uterine and Extrauterine Pregnancy.**—Vineberg reports two cases, both ending in recovery. He says that in every case of uterine miscarriage that shows abnormal symptoms, after the uterus has been emptied the probability of an associated extrauterine pregnancy should be considered, and likewise after an operation in a case of extrauterine pregnancy, should there be an undue persistence of uterine bleeding one ought to think of the probability of an associated uterine pregnancy that has been overlooked.

Boston Medical and Surgical Journal.

February 22.

21 John Hunter. J. G. Mumford, Boston.
22 Stenosis of the Pylorus in Infancy. C. L. Scudder, Boston.
23 Home Sanatorium Treatment of Consumption. J. H. Pratt, Boston.
24 Cold Fresh-Air Treatment of Pneumonia. W. P. Northrup, New York.
25 *New Gouge for Submucous Operations in the Nose. R. A. Coffin, Boston.

25. **New Gouge for Submucous Operations in Nose.**—Coffin has found his instrument particularly useful in removing cartilaginous and bone thickenings of the septum. The length of the instrument is five inches. (The original article must be referred to for a full description of the instrument.) The advantages claimed for this instrument are: (1) The rapidity with which thickenings under the mucous membrane can be removed; (2) safety; (3) rapid healing, with little or no crusting; (4) ease with which the broad, flat thickenings, which can not be engaged with the saw, can be removed.

Lancet-Clinic, Cincinnati, Ohio.

February 24.

26 Diseases, Diagnosis and Surgical Treatment of the Right Upper Abdominal Cavity. B. M. Ricketts, Cincinnati.
27 Tuberculosis. F. C. Curry, Milford, Ohio.
28 When Prostatotomy Instead of Prostatectomy Is Indicated. C. E. Barnett, Ft. Wayne, Ind.
29 Migraine—Hemicrania—Sick Headache. E. L. Mather, Akron.
30 President's Address, Delivered Before the Ohio Valley Medical Association, at Henderson, Ky. J. W. Stone, Henderson.

St. Louis Medical Review.

February 24.

31 Silver Therapy. S. S. Cohen, Philadelphia.
32 Rapid Cure of Eczema of Face and Head. G. Richter, St. Louis.
33 Further Examples of Corrupt Medical Nomenclature. A. Rose, New York.

Surgery, Gynecology and Obstetrics, Chicago.

January.

34 Common-duct Cholelithiasis; Its Symptoms, Complications and Treatment. A. W. M. Robson, London, England.
35 Lexer's Operation for Removing the Gasserian Ganglion. W. Van Hook, Chicago.
36 Acute Postoperative Dilatation of the Stomach. A. E. Halstead, Chicago.
37 Treatment of Placenta Prævia. E. P. Davis, Philadelphia.
38 Indications for Forceps at Cook County Hospital, Chicago. C. B. Reed, Chicago.
39 Diagnosis of Surgical Lesions of the Kidney. C. D. Lockwood, Los Angeles.
40 A Third Ovary. W. P. Manton, Detroit.
41 Tumors of the Parotid in Children. C. G. Grulee, Chicago.
42 *Tuberculosis of the Cervical Lymph-Nodes. D. N. Eisendrath, Chicago.
43 Calcification in Gynecology. F. T. Andrews, Chicago.
44 *Modification of Kronlein's Trigeminous Operation. E. Lexer, Konigsberg, Prussia.
45 Joseph Bacon's Dumb-bell Intestinal Anastomosis. B. Robinson, Chicago.
46 Progress of Liver Hemostasis. W. E. Schroeder, Chicago.
47 Treatment of Fractures of the Femur at the Cook County Hospital. C. Davison, Chicago.
48 *Retroperitoneal Hernia. L. L. McArthur, Chicago.
49 Cesarean Section, with Questionable Indication. P. Findley, Chicago.
50 Technic of the Surgical Department of Cook County Hospital. C. P. Phemister, Chicago.
51 Obstetric Technic in the Cook County Hospital. H. F. Lewis, Chicago.
52 *Technic of the Longitudinal Wire Suture in the Closure of the Abdomen and in the Radical Operation for Hernia. M. L. Harris, Chicago.
53 Technic of Removal of the Breast and Axillary Glands. J. B. Murphy, Chicago.
54 Technic of the Andrews Operation for Hernia. E. W. Andrews, Chicago.
55 *Technic of Closure of Wounds by Removable Continuous Suture. C. Davison, Chicago.

42. **Tuberculosis of Cervical Lymphnodes.**—Eisendrath believes that sufficient attention has not been paid heretofore to the primary infection atria in tuberculous cervical lymphadenitis. He makes it a practice to have every patient examined, if possible, before operation by a specialist as to the existence of diseased faucial tonsils, complicated or not by the presence of adenoids. Practical experience has convinced Eisendrath that there are cases of tuberculous cervical lymphadenitis which run a very acute course, so that cessation occurs within two or three weeks after the onset of the disease. He thinks that the majority of these cases are the result of an influenzal inflammation of the lymphnodes. He describes in detail the operative technic employed by him in these cases.

44. **Modification of Kronlein's Trigeminous Operation.**—In the method devised by Lexer, the cutaneous incision passes along the upper margin of the zygoma through the skin and temporal fascia. It begins anteriorly at the upper anterior zygomatic angle, close to the posterior margin of the fronto-sphenoidal process, ending posteriorly immediately in front of the temporal artery. It is necessary to cut this. In order to cut the zygoma the posterior angle of the wound is pulled and a needle armed with a chain-saw is passed around the zygomatic process of the temporal bone. The bone is sawed obliquely in a posterior and outward direction. Next a chisel—not too wide—is applied to the upper margin of the zygoma, close to the base of the fronto-sphenoidal process, and the zygoma is severed, with preservation of all soft parts—entirely subcutaneously—in a forward and downward direction.

On retracting the mobilized zygoma, inclusive of the margin of the wound downward, the temporal muscle is brought into view. The posterior margin of the muscle is detached bluntly from the bone and forcibly pulled forward by a blunt hook. In case of small facial bones or strongly developed muscle, nicking of the margin of the muscle is advisable. The retrac-

tion of the muscle renders the infra-temporal crest accessible. This is located with a blunt instrument (to avoid contact with the finger), and the periosteum is cut exactly on top of the crest. If, by mistake, the insertions of the pterygoid muscles are attacked, the further course of the operation becomes a bloody and difficult one. A blunt hook about 2 cm. in width is applied to the periosteal wound, running at right angles to the infratemporal crest. Employing the hook as periosteal levator, the periosteum and the pterygoid muscles are detached from the bone. This accomplished, the detached muscles, with the zygoma, are retracted downward and somewhat forward by the hook previously attached to the wound. This exposes at once the infratemporal fossa (zygomatic fossa), and in its posterior portion the foramen ovale with the third branch. It is not difficult to pull this forward with a small curved hook in order to grasp it by forceps for the purpose of evulsion. The foramen and the vicinity is closely scrutinized for any remaining branches.

If the nerve is grasped close to the foramen ovale, injury of the middle meningeal artery may be avoided. The artery is covered by the condyloid process of the inferior maxilla, and is seen in anatomic specimens in looking downward and backward from the anterior portion of the wound. The incision serves likewise for removal of the second branch, if this becomes necessary. All that is necessary is to place the head in such a position that one can view the field from the posterior margin of the wound in a downward and forward direction. The nerve is located at the entrance of the spheno-maxillary fissure surrounded by loose adipose tissue. From this the nerve is picked up by a hook, separated from the fatty tissue by small sponges and tissue forceps. When absolutely certain that the entire nerve is separated, it is grasped and evulsed.

48. **Retroperitoneal Hernia.**—McArthur cites a case of hernia in the fossa of Treitz consisting of an incarcerated loop of jejunum of which an accurate diagnosis could not be made before laparotomy, and then only after a most exhaustive search through the abdomen. After a careful study of the history of the case it appeared probable that there existed an acute intestinal obstruction, which might be due either to a mechanical or to an infective inflammatory cause. In favor of the mechanical nature of the obstruction was the somewhat gradual onset of the obstructive symptoms, without high fever, and with the appearance of blood and mucus in the stools; the blood count, while elevated, not being high enough to be convincing as to the presence of pus. Because of the tenderness over the whole abdomen, the sudden sharp exacerbation of the pains on the second day, and some rise in temperature, attention was directed to the appendix, but without other corroborative signs. Following the eviscerations in the endeavor to find the point of obstruction, almost the entire small intestine was removed from the abdomen before a small loop was found which led to the discovery of the cause of the trouble. The patient made an uneventful recovery.

52. **Use of Longitudinal Wire Suture.**—The wire used by Harris is aluminum bronze, Nos. 26 and 27, for ordinary purposes. The advantages of this wire over silver wire are its greater tensile strength, consequently a smaller wire can be used, and the fact that it does not kink so readily. The wire can be easily, quickly and certainly sterilized by simply placing it in boiling water with the instruments. In closing a median incision through the abdominal wall, three wire sutures are used, one closing the peritoneum, one in the sheath of the rectus muscle, and one in the skin.

The sutures are introduced in the following manner: A No. 27 aluminum bronze wire is threaded directly in a nearly full-curved round needle with a specially constructed eye for carrying wire so that it will not slip in the eye. The needle is made to enter the skin in the midline, 1 to 3 cm. from the angle of the incision, and penetrates obliquely all the tissues down to the peritoneum, where it should appear at the angle of the peritoneal incision. The peritoneum is now taken up with the needle, parallel with and quite near to its edge, first on one side and then on the other, constantly in an advancing manner until the entire length of the incision has been traversed. The grasp of the needle should not be more than a centimeter in length, and the point of entrance of one grasp should be opposite the point of exit of the last grasp. The suture is then brought obliquely to the surface about the same distance from the cutaneous angle as at its point of entrance.

The second suture, wire, No. 26, enters in the midline, but a little nearer the angle of the incision. It penetrates as far as the sheath of the rectus muscle, where the edges of this fascia are taken up longitudinally in exactly the same manner as has just been described for the peritoneum. No sutures are applied to the recti muscles. At no point in the midline do the recti muscles lie in contact with one another; hence, in closing a median incision, it is unnecessary to suture together the recti muscles with the expectation of obtaining union between them. The dense, thick, conjoined fascia of the linea alba in the upper part of the abdomen or the firm anterior layer of the muscle sheath below Douglas' fold is the all-important layer to be sutured. This is the layer in which the most perfect apposition, edge to edge, should be secured. The third suture is the usual subcutaneous or subcuticular suture. The wire enters and leaves at the angles of the incision, running along in the corium, in and out, in the same manner as has been described for the other two. It does not appear on the skin at any point, except where it enters and leaves. After the wires are introduced they are drawn back and forth until they are perfectly straight and move easily through the tissues.

The wound may now be dressed in any manner one chooses. The method Harris uses is to seal the line of union with silver foil, after the method of Halstead. On this he places a compress of a few layers of plain sterile gauze, over which are folded the ends of the wires, which should be left long. On these is placed another similar compress, followed by the usual dressing of plain sterile gauze and cotton. The wires are usually allowed to remain two weeks. To remove the wires, they should be drawn back and forth gently until loosened in the tissue, then one at a time cut close to the skin and withdrawn. They are easily removed with scarcely any pain. Care should be taken not to break the wires by pulling suddenly before loosening them. In closing the muscle-splitting incision in interval operations for appendicitis, one wire parallels the fibers of the internal oblique and transversalis, entering and leaving the skin some distance from the cutaneous incision, and crossing it almost at right angles. Another wire parallels the fibers of the external oblique, and a third forms the subcuticular suture. The method which Harris uses in operating on inguinal hernia is described in detail.

55. **Removable Continuous Sutures.**—All laparotomy wounds that are not drained, Davison closes by applying each layer with removable continuous longitudinal silkworm gut sutures. The suture in the fascia of the abdominal wall is fastened by terminal bowknots on the upper surface of the fascia, and the free ends of the suture are allowed to protrude from the wound. The bowknots are untied by traction on the exposed ends, and the suture removed at the completion of the process of healing. The technic of the suture of the wound in a median laparotomy is as follows: All hemorrhage in the wound in the abdominal wall is stopped by sponge pressure, by forcipressure or by torsion; no catgut whatever is used. The edges of the peritoneum are caught with forceps, and are held up, away from the intestine, by an assistant, and the peritoneum is approximated by a continuous ringbone suture. The suture is lightly shirred to take up all the slack, and the ends are left hanging out of the angles of the wound, temporarily held out of the way by snap forceps. In a median laparotomy the linea alba is the strong layer of the abdominal wall, and if this layer be fastened securely there can be no spreading of the wound. The edges must be accurately approximated. The fat must be cleaned away, so that there shall be no interposition of tissue betwen the edges of the fascia, as that would weaken the line of union and predispose to ventral hernia. For this suture a perfect strand of silkworm gut, soft and pliable from recent boiling, is selected. A small reverse bowknot is loosely tied 10 or 12 cm. from the end of the strand. The edges of the fascia are caught with forceps and held by an assistant. The suture is introduced in a firm place in the fascia back from the angle of the wound and drawn up to the knot, and the fascia

is approximated by a continuous herring-bone suture. The needle perforations in the fascia are placed about ½ cm. from the edge and 1 cm. apart.

At the last stitch the suture is shirred up tightly, grasped by a smooth (serrations filed off) dissecting forceps at its exit from the fascia, held by an assistant, and another reverse bowknot tied below the point of the forceps. In tying the knot around the forceps the strand must pass under the forceps, and the loop must pass up from below, or no knot will result. The greatest care must be used not to crush or fray the silkworm gut with the forceps at the knot, for such a defect might cause the strand to break at that point at the time of removal. As the bowknot is intended only to form a body to obstruct the passage of the sutures through the fascia, it should be tied loosely, to make a larger obstruction, and to facilitate its untying at the time of removal. The ends of the tied suture must not be held out of the way by snap forceps, as their weight might untie the knots. The linea alba, being securely fastened, takes all the tension from the other layers, and the unfastened sutures in the other layers do not tend to pull loose.

The skin is closed by the Halstead subcutaneous stitch. If the patient is very fat, an extra running suture can be placed to approximate the fat and to avoid a dead space. If the wound is too long to close with a single silkworm gut strand, it is closed in sections, by repeating each suture. Lateral celiotomies are closed by suturing each layer of fascia with a tied strand of silkworm gut, not allowing muscle or fat to be included in the suture.

Texas State Journal of Medicine, Fort Worth.

February.

56 Sentiment and Science. F. E. Daniel, Austin.
57 Local Anesthesia in Major Surgery. W. Keiller, Galveston.
58 Special Prophylaxis of Criminals and Degenerates. J. N. Mendenhall, Plano.
59 *Multicystic Ovarian Tumor Weighing 328 Pounds. A. E. Spohn, Corpus Christi.

59. **Multicystic Ovarian Tumor.**—Spohn reports this case because of the enormous size of the tumor. The abdomen was so much enlarged that it came almost up to the patient's chin and extended midway betwen her feet and knees. When she lay on her side on a three-quarter bed the abdomen had to be supported on two chairs. The patient could not reach her navel with her hands by one and one-half feet. When her family wished to move her they rolled the tumor and she went with it. Spohn reduced the size of the tumor gradually by tapping, then opened the abdomen and removed the cyst sac, which weighed forty pounds. The total weight of the tumor was 328 pounds. The patient made a good recovery.

California Medical and Surgical Reporter, Los Angeles.

February.

60 Prognosis and Treatment of Acute and Chronic Nephritis. R. W. Wernigk, Los Angeles.
61 *Treatment of Malignant Tumors. A. Soiland, Los Angeles.
62 *An Unusual Case of Pregnancy. J. F. Spencer, Gardena.
63 *Rare Case of Hematoma. C. Freedman, Los Angeles.
64 *Metastatic Melanosarcoma. C. A. Smalley, Los Angeles.
65 Echinococcic Cyst Occluding the Pyloric End of the Stomach. H. P. Barton, Los Angeles.

61. **Treatment of Malignant Tumors.**—Soiland favors the employment of the Roentgen ray in conjunction with surgery in attacking malignant disease. The raying should be begun immediately after the surgeon has removed the growth, or as much of it as possible. A little over a year ago he made an application of powerful *x*-rays directly into the wound immediately following the extirpation of a large mammary cancer which was accompanied by a great deal of necrotic glandular involvement and pus. The wound healed quickly, without secondary infection, and there has been no sign of recurrence. Two other patients were treated similarly and with equally good results.

62. **Unusual Case of Pregnancy.**—Spencer relates the case of a woman aged 44, a multipara, who had a very severe hemorrhage at seven and a half months. Four weeks from the date of this hemorrhage there was a slight flow, lasting the usual number of days. Three weeks later there was another flow, which was followed by a third. The latter was accompanied by great bearing-down pain. The os was dilated to admit three fingers, and with but little aid the fetus and placenta were delivered. The head of the fetus presented a flattened shape; there was neither odor nor blood from the surface of the placenta. The time from the supposed conception until the delivery of the fetus was fully ten months. The interesting feature of this case was the fact that the woman had two normal periods of menstruation, neither of which caused a miscarriage.

63. **Rare Case of Hematoma.**—On examining a woman who was the victim of delayed labor, Freedman noticed a large globular mass, about the size of a fist, completely occluding the vagina. It was attached to the anterior vaginal wall, and its color and general characteristics pointed to its being a large hematoma. By careful manipulation it was possible to deliver the child, but another child was then discovered in the uterus, and in order to permit of its evacuation Freedman was compelled to incise the hematoma and turn out the clot. The child was delivered successfully with high forceps. All went well and the patient made a perfect recovery.

64. **Metastatic Melanosarcoma.**—The primary tumor in this case was located in the right anterior occipital convolution and was the size of a walnut. Another tumor was located in the right anterior central convolution near the left Rolandic fissure. Numerous metastatic tumors were found in all parts of the body. Some of the features of interest in the case were the apparent involvement of all the structures in the internal capsule without total and permanent hemiplegia and sensory disturbances; the involvement of the right Rolandic fissure without motor symptoms referable to the left side; the mild subjective symptoms; the non-disturbance of special senses and the very slight mental disturbances; the almost complete amelioration of symptoms at times; the absence of metastases in the lungs, liver, heart, spleen and pancreas.

Journal of Cutaneous Diseases, New York.

February.

66 Evolution of American Medical Education—Recoguition of Dermatology in the Curriculum—Need of Clinical Concentration. W. T. Corlett, Cleveland.
67 Cases of Epidermolysis Bullosa, with Remarks on the Congenital Absence of Elastic Tissue. M. F. Engman and W. H. Mook, St. Louis.
68 *Prodromal Erythema of Varicella. H. G. Anthony, Chicago.

68. **Prodromal Erythema of Varicella.**—Anthony has observed two cases which he believes were analogous to the prodromal erythema of variola. A child, perfectly healthy, suddenly, without prodromal symptoms or any disorder of the throat or stomach, broke out with an erythematous rash which was not scarlet-fever like, but which was something special, because of the watery discharge from the eye. The eruption was accompanied by a few chicken-pox lesions. The varicella eruption developed fully and in forty-eight hours the temperature fell to normal. In the case of the second patient the eruption was not accompanied by chicken-pox and the temperature fell to normal in twenty-four hours. Anthony is convinced that these were instances of prodromal eruptions.

California State Journal of Medicine, San Francisco.

February.

69 *Asphyxia Neonatorum; A New Method of Resuscitation. W. Himmelsbach, San Francisco.
70 *Tuberculosis of Mesenteric Lymph Glands, Symptoms of Intussusception Necessitating Resection of the Intestine. H. M. Sherman, San Francisco.
71 The Value of Kryoscopic Investigations for Pathology and Diagnosis. A. E. Taylor, San Francisco.
72 Conservative Treatment of Severe Ocular Injuries. F. Allport, Chicago.
73 Report of Committee on Vital Statistics. W. J. G. Dawson, Eldridge, Cal.
74 Preliminary Report on Phlebosclerosis. J. B. Frankenheimer, San Francisco.
75 Semi-Annual Address of President of Santa Clara County Medical Society. J. L. Asay, San José.
76 Propriety of Cholecystectomy as an Initial Procedure in Gall-Bladder Surgery. T. W. Huntington, San Francisco.
77 Recent Complete Tears of the Perineum. G. B. Somers, San Francisco.
78 Mercurial Injections in Syphilis. H. Morrow, San Francisco.
79 Undrawn Poultry and Fish. F. G. Fay, Sacramento.

69. **Resuscitation in Asphyxia Neonatorum.**—The method proposed by Himmelsbach was first used by him in March, 1900, since when he has applied it in 20 cases with uniform success. The method consists of a hypodermic injection of 1/1500 grain of sulphate of strychnia and 1/2000 grain of sulphate of atropin.

70. **Tuberculosis of Mesenteric Lymph Glands.**—Sherman cites the case of a girl, 8 years old, who was brought to him with presumably pseudohypertrophic muscular paralysis. Subsequently she developed pain, vomiting, and obstipation, which was complete at first and resisted cathartics, but later yielded to enemata. From that time there was diarrhea, small mucosanguinolent stools being voided two, three or four times a day. Furthermore, a rounded mass, about 8 cm. in diameter, was felt in the abdomen just below the umbilicus. A diagnosis of probable intussusception was made and operation was advised. The operation disclosed a large gland in the mesentery of the ileum and close enough to the spine to press on the mesenteric veins and partially occlude them. The intestine served by these obstructed veins was congested and edematous. As it was impossible to remove the gland without either rupture or injury to the veins, and as, if it was left, it soon must itself break and pour its contents into the peritoneum producing tuberculous peritonitis, the gland, mesentery and intestine, to the extent of 53 cm., were removed and anastomosis was made with a Murphy button. The child had a stormy convalescence, but eventually recovered.

Journal of the Michigan State Medical Society, Detroit.

February.

80 Significance of Itching and an Analysis of Methods Suggested for Its Relief. A. P. Biddle, Detroit.
81 The Building of a Physician. C. H. Lewis, Jackson.
82 Puerperal Sepsis. W. F. Metcalf, Detroit.
83 Inflammation. I. N. Brainard, Alma.
84 *Disorders from Eyestrain. O. A. Griffin, Ann Arbor.
85 Ectopic Pregnancy. E. C. Taylor, Jackson.

84.—This article appeared in THE JOURNAL, Jan. 6, 1906, page 32.

New Orleans Medical and Surgical Journal.

February.

86 Treatment of Blackwater Fever. E. M. Dupaquier, New Orleans.
87 Two Cases of Ovarian Cyst, with Twisted Pedicle. E. L. McGehee, New Orleans.
88 Pneumonia in Childhood. E. D. Fenner, New Orleans.
89 Peripheral Neuritis. L. L. Cazenavette, New Orleans.
90 Simple Urethritis Complicated with Satyrio-Erotomania. C. M. Menville.
91 Treatment of Syphilis. W. E. Parker.

Medical Standard, Chicago.

February.

92 Visceral Fixation in Splanchnoptosia. B. Robinson, Chicago.
93 Cancer of the Rectum. C. J. Drueck, Chicago.
94 Tuberculin and Anti-Tuberculosis Sera. R. C. Whitman, Chicago.

American Journal of Surgery, New York.

February.

95 Technic of Urethral Dilatations. F. C. Valentine and T. M. Townsend, New York.
96 Wandering, Parasitic, or Aberrant Retroperitoneal Fibromata of Uterus. I. S. Stone, Washington, D. C.
97 Exstrophy of the Bladder; Operation; Result. R. Guiteras, New York.
98 Office Treatment of Rectal Diseases and Its Limitations. J. P. Tuttle, New York.
99 Plaster of Paris, and How to Use It. (Continued.) M. W. Ware, New York.
100 Abscess of the Liver. L. Sexton, New Orleans.
101 A Case of Siderosis Bulbi. W. C. McKeeby, Syracuse, N. Y.

American Journal of Urology, New York.

February.

102 Treatment of Stricture of the Urethra; Measures and Precautions Necessary to Obtain Success in Cases Requiring a Cutting Operation. G. MacGowan, Los Angeles.
103 Surgical Interference in Medical Nephritis. R. Harrison, London, England.
104 Diagnosis of Large Neoplasms in the Left Hypochondrium. E. Glauffer.
105 History of Prostatic Surgery in Connecticut. O. C. Smith, Hartford, Conn.

Journal of the Mississippi State Medical Association, Vicksburg.

February.

106 Atypic Hematuria. W. P. Barton, Hillhouse.
107 Toxenteric Fever. W. D. Wilson, Schlater.
108 Address to the Scott County Medical Society. I. Edwards, Morton.
109 Puerperal Eclampsia. W. D. McCalip, Cleveland.
110 Medical Organization. E. F. Arnold, Bellefontaine.
111 Septicemia of the Puerperium. L. D. Dickerson, McComb.

Louisville Monthly Journal of Medicine and Surgery.

February.

112 Ureteral Valves. B. Robinson, Chicago.
113 What Is the Best Way to Preserve the Sphincter Ani Muscles in Operating for Fistula-in-Ano? J. M. Mathews, Louisville.
114 Temporary Glycosuria. F. C. Simpson, Louisville.
115 Clinical Report of Chronic Suppuration of Nasal Accessory Sinuses. J. A. Stucky, Lexington, Ky.

Medicine, Detroit, Mich.

February.

116 Tumors and Cancer Among the Bush Natives of Angola. F. C. Wellman, Benguella, West Africa.
117 Elementary Principles of Metabolism. J. McFarland, Philadelphia.
118 Erotic Symbolism. H. Ellis, Cornwall, England.
119 Medicolegal Aspects of Dying Declarations. J. G. Kiernan, Chicago.
120 Tuberculosis of the Male Genitourinary System. J. A. Patton, Chicago.

Journal of the Association of Military Surgeons of the United States, Carlisle, Pa.

February.

121 Alcohol a Depreciating Factor of Efficiency. G. A. Lung, U. S. N.
122 Observations Concerning the Controlling of Epidemics. E. C. Carter, U. S. A.
123 Efficiency of the Enlisted Man in the Hospital Corps, with Particular Reference to the National Guard. G. M. Coates, Philadelphia.
124 Treatment of Inguinal Adenitis. G. Rothganger, U. S. N.
125 Case of Peritoneal Wound. W. H. Wilson, U. S. A.
126 Virulent Outbreak of Tuberculosis in a Gurkha Regiment. H. Hamilton, Lahore District.

Bulletin Johns Hopkins Hospital, Baltimore, Md.

February.

127 A Glass Model of the Spinal Cord. I. Hardesty, San Francisco.
128 Reverend Gershom Bulkeley of Connecticut, an Eminent Clerical Physician. W. R. Steiner, Baltimore.
129 Sketch of the Lives of a German and an American Master of Surgery. M. B. Tinker, Ithaca, N. Y.

Ohio State Medical Journal, Columbus.

February 15.

130 Head Pains and Eye Symptoms Caused by Inflammation of the Accessory Sinuses of the Nose. C. R. Holmes, Cincinnati.
131 Question of Ethics in the Art of Prescribing. D. R. Silver, Sidney.
132 What Subjects and How Much Work in Each Should Be Required of a Graduate of a Literary College to Gain a Year's Advanced Standing in a Medical College of this State. C. F. Clark, Columbus.
133 Anesthetics. C. P. King, Newark.
134 Therapeutics. E. A. Wolf, Dennison.
135 Prostatic Hypertrophy. E. M. Gilliam, Columbus.

Northwest Medicine, Seattle, Wash.

February.

136 Treatment of Acute Lobar Pneumonia. B. O'Connor, Mackay, Idaho.
137 Chronic and Subacute Appendicitis as a Cause of Disorders of Digestion. J. B. Eagleson, Seattle.
138 Appendicitis, Theories of Causation of Pain and Accompanying Digestive Disturbances. W. S. Durand, Everett, Wash.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal.

February 10.

1 *Relation of Angina Pectoris to an Arterio-Cardiac Reflex of Abdominal Origin. W. Russell.
2 *Food Fever in Children. E. Smith.
3 *Drug Idiosyncrasies in Relation to Official Dosage. C. O. Hawthorne.
4 Industrial Lead Poisoning. J. S. Clayton.
5 *Hereditary Syphilis and Enteric Fever. J. D. Rolleston.
6 Clinical Features of Mediterranean Fever. P. W. Bassett-Smith.
7 Hemoglobinuric Fever in Syria. E. W. G. Masterman.
8 *Case of Measles in the Puerperium. M. Campbell.
9 *Case of Adhesive Mediastino-Pericarditis. J. M. Bennison.
10 Unusual Variations of the Erythematous Syphilide. A. Cooper.

1. **Angina Pectoris and an Arterial Reflex of Abdominal Origin.**—Russell records his observations regarding an arterial reflex having its origin in the abdomen, the importance of which he thinks has not been fully appreciated. While the active processes of digestion are going on, there is an influx of blood into the splanchnic area. This drainage into the abdominal vessels is balanced in the general circulation by a systemic arterial contraction, evidently a reflex phenomenon originating in the splanchnic system, passing to the vasomotor center in the medulla and then transmitted to the systemic arteries. The changes in the systemic arteries are a reduction in size and an apparent thickening of the arterial wall. The degree of these changes depends on the kind of meal which has been taken. In the big eater and the wine drinker the arterial contraction is associated with a rise of blood pressure and a true increase of

arterial tension. This reflex varies in delicacy in different persons. It exists in all. Russell is convinced that there is a relation between this phenomenon and angina pectoris, and cites several instances in support of his contention. He shows that this hypersensitiveness of the vasomotor center, even in grave angina pectoris, can be reduced, controlled or even removed by dietetic measures, with the result that the anginous seizures are removed or greatly modified. In cases where the arterial spasm is associated with great anatomic change, either in the myocardium or in the coronary vessels, absolute cure can hardly be looked for, says Russell, but in all cases the symptoms of angina pectoris may be much ameliorated by conducting the treatment in accordance with what they indicate. Owing to the varying degree of intensity of the symptoms, Russell suggests that in classifying the cases the simplest distinction might be found in the terms angina pectoris major and angina pectoris minor, the former being confined to those cases in which there is believed to be permanent anatomic change in the heart or its vessels.

2. **Food Fever.**—Under this term Smith describes an affection consisting of an attack of fever which comes on suddenly, being accompanied by signs, more or less pronounced, of digestive disturbance, lasting in its acute form for several days and lingering on in a modified degree for some weeks. If the attacks occur frequently—once a month or so—their effect on the nutrition of the patient is highly injurious. The subjects of the complaint are usually neurotic children of either sex between the ages of 3 and 12 years. The attack begins with headache, accompanied sometimes by vomiting, sometimes by looseness of the bowels, but always by signs of some kind of digestive upset. The temperature ranges from 101 to 105. The stomach resonance reaches higher than normal, and the edge of the liver can be felt one or two finger-breadths below the costal margin. The urine is high colored, thick and acid. If the patient is left alone, or not treated properly, the temperature remains for some days continuously higher than the normal level. It generally rises a little after taking food and in the evening. At the end of a few days it subsides, either suddenly after a profuse sweat, or gradually, but is often moderately elevated for a week or even longer. To prevent and cut short the attacks, a careful diet is of the utmost importance. Steps must also be taken to prevent any fresh attack of catarrh which would keep up the derangement of the digestive organs. Hygiene is also of importance.

3. **Drug Idiosyncrasies and Official Dosage.**—Hawthorne says that an official dosage must be recognized as a possible danger to free and responsible personal prescribing, unless its functions and purpose are strictly limited and defined. The personal factor provided by the individual patient should regulate the dosage of any drug which it may be necessary to give him. The careful adaptation of remedies, both qualitative and quantitative, to the wants and idiosyncrasies of the individual patient is an essential part of good practice. Conformity to a stereotyped scale of doses is out of harmony with the liberty and power of scientific prescribing.

5. **Hereditary Syphilis and Enteric Fever.**—Rolleston cites a case which illustrates how a disease hitherto latent may be roused into fresh activity by an acute illness, though the latter is not etiologically connected with it. His patient, aged 19, had a typical attack of typhoid, the diagnosis being confirmed by all known tests. On the forty-eighth day, when convalescence appeared to be firmly established, the patient complained of pain in the lower jaw, which was accompanied by swelling. Under fifteen-grain-doses of potassium iodid, three times daily, the condition speedily disappeared. On careful examination of the patient evidences of hereditary syphilis were found.

8. **Measles in the Puerperium.**—Campbell's patient, a young primipara, and her brother, a boy 6 years of age, were at a place of public amusement at a time when measles were rather prevalent. The following day both showed signs of having caught cold, but the symptoms disappeared in about thirty-six hours. Three days afterward the woman had a perfectly normal labor and gave birth to a living, healthy child. On the seventh day of her puerperium, her brother showed marked catarrhal symptoms, and on the next day the patient's temperature was almost 100. A typical measles rash appeared, followed by some ear symptoms and a general facial edema. Both patients made perfect recoveries. As soon as the mother became ill the baby was put in charge of a nurse and isolated. Seven days afterward the infant began to be fretful and restless. There was some vomiting, aversion to food and a slight temperature. Within forty-eight hours there was a most typical measles rash, well marked all over the body. The infant recovered. Campbell directs attention to the following points of interest. Though exposed at the same time, the symptoms manifested themselves twenty-four hours sooner in the healthy boy than in the pregnant or parturient woman. The attack was more severe in the former than in the latter, and was least severe in the case of the infant.

9. **Adhesive Mediastino Pericarditis.**—Bennion regards the pericarditis in this instance as probably of rheumatic origin. At the autopsy it was found that the pericardial sac was quite obliterated and that there were large calcareous deposits in the pericardium all around the base, especially over the inferior vena cava. The heart valves were all competent. The heart muscle was hypertrophied. The patient, a girl aged 13, had measles when a baby, but had never had rheumatic fever or any other illness of importance. She died about four months after the first symptoms were noted.

The Lancet, London.

February 10.

11 Aphasia. B. Bramwell.
12 Ethics of the Medical Profession in Relation to Syphilis and Gonorrhea. C. Williams.
13 *Observations on the Etiology of Oblique Inguinal Hernia. R. W. Murray.
14 Fatal Rupture of a Pyosalpinx During Labor. J. W. Robb.
15 Hematologic and Chemical Observations in a Case of Splenomedullary Leukemia Under X-Ray Treatment. J. C. G. Ledingham.
16 *Bilharzia Infection of the Vermiform Appendix. J. Burfield.
17 *Torsion of the Testicle. R. M. Going.

13. **Etiology of Oblique Inguinal Hernia.**—Murray has been struck by the marked resemblance as regards the shape, general appearance and relationship of the sac in operating for oblique inguinal hernia in infants, older children and adults. From this he infers that the hernias of the old and the young have a common origin, and that in all ordinary inguinal and femoral herniæ the sac is preformed and of congenital origin. He suggests that the occurrence or not of hernia depends on two factors—the size of the opening at the internal abdominal ring and the strength of the muscles guarding it. If in the case of patency of the processus vaginalis the opening at the internal abdominal ring be small and the muscles guarding it powerful, then the probabilities of a hernia occurring are slight. If, on the other hand, the opening is large and the inguinal sphincter weak, the probabilities of a hernia occurring are considerable. The frequent occurrence of inguinal hernia in infants would thus be explained.

16. **Bilharzia Infection of Appendix.**—The patient whose case is reported by Burfield had an attack of appendicitis which eventually left him with a sinus leading to an abscess cavity in close connection with the proximal part of his appendix. This sinus was the means of entry of the bilharzia while the patient was bathing. The bilharzia ova were found in the appendix. There was nothing in the history of this patient to suggest bilharzia infection of the genitourinary tract or of the rectum. The patient never had a diarrhea and no blood or mucus was ever found in the stools.

17. **Torsion of Testicle.**—This patient, aged 17 years, appeared to be suffering from an acute orchitis. The symptoms finally demanded operation. On opening the tunica vaginalis, Going found a dark purplish mass in front, which afterward proved to be the globus major of the epididymis, and behind it was the testicle of a fairly normal color and not much enlarged. Going dissected the tunica vaginalis from the surrounding parts, ligated the cord with fine silk close to the external abdominal ring and excised it. A small drainage tube was placed in the lower end of the scrotum through a small incision. The original wound was closed with silkworm-gut sutures and dressed with cyanid gauze. The drainage tube was removed in forty-eight hours. The patient was allowed up on the fourteenth day.

Journal of Tropical Medicine, London.

February 1.

18 Notes from Angola. (Concluded.) F. C. Wellman.
19 Outline of Plague as Met in British East Africa. J. A. Haran.
20 *Outbreak of Acute Contagious Conjunctivitis in Ceylon. A. Perry and A. Castellani.

20. **Acute Contagious Conjunctivitis.**—Perry and Castellani made microscopic and bacteriologic examinations of the conjunctival secretions of six patients. In each of these cases the Koch-Weeks bacillus was found. In one case it was associated with a bacillus of the xerosis group. Animal experiments showed that the Koch-Weeks bacillus is non-pathogenic for the lower animals.

Bulletin de l'Acad. de Médecine, Paris.

21 (Year LXX, Nos. 4-5.) The Spleen Has No Influence on Secretion of Bile.—La rate n'a pas d'influence sur la sécrétion de la bile. Paulesco and Lancereaux.
22 Smallpox and Vaccination Under Napoleon I.—Napoleon I. promoteur probable de la vaccine obligatoire. Kelsch.
23 La mortalité par tuberculose en France et en Allemagne (in Germany). A. Robin.
24 Cas de mycétome d'origine aspergillaire observé en Tunisie. Nicolle and Blanchard.

Revue de Chirurgie, Paris.

Last indexed, page 76.

25 (XXV, No. 10.) *Pancréatites et lithiase biliaire. E. Quenu.
26 Les kystes hydatiques de la paroi abdominale (wall). C. Lenormant.
27 Du Périthéliome. P. Vignard and G. Mouriquand.
28 *Hémorrhagies des kystes tordus de l'ovaire (torsion of ovarian cysts). C. Daniel.
29 *Cure radicale des hernies inguinales. L. Gratschoff.

25. **Pancreatitis and Biliary Lithiasis.**—Quénu and Duval have operated on 4 patients with pancreatitis occurring in the course of a gallstone affection. They have been able to find reports of other cases, bringing the total to 118. All varieties of pancreatitis have been encountered, and Kehr remarked recently that the oftener he operated the more frequently he found lesions in the pancreas. The pancreatitis was chronic in about half the cases on record, and almost always localized in the head of the gland. When the gallstone affection is accompanied by pancreatitis the biliary attack is not typical; there are always certain abnormal details. The location and the nature of the pain are a little different. It may be referred to the stomach or to the region between the sternum and the umbilicus, and the greatest tenderness may be in the center of the epigastrium. The pain may radiate into the back, between the shoulders or toward the left shoulder. Vomiting is more frequent than in simple lithiasis. In one personal case the vomiting was almost uncontrollable. The syndrome is that of pancreatic colic superposed on the gallstone colic. In only 10 cases was a tumor to be palpated, and in some it was supposed to be an invagination. In 2 cases the tumor was palpated under the false ribs on the left. Functional tests of the pancreas are more instructive than the other findings. The urine or the feces, or both, can be examined. In 21 of the cases of acute pancreatitis an operation was undertaken, with 13 deaths. None of the 5 patients with hemorrhagic pancreatitis operated on survived. The cases with suppuration or necrosis terminated fatally in 45 per cent. All but 8 recovered in the 62 patients with chronic pancreatitis treated by operation and ample drainage. The particulars of the total material are summarized and the 4 personal cases are described in detail.

28. **Hemorrhage After Torsion of Ovarian Cysts.**—The conclusions of this study of hemorrhagic cysts of the ovary are that hemorrhage is frequent in a twisted ovarian cyst, occurring in about half the cases. Treatment should be by prompt laparotomy, even during pregnancy or the puerperium. Pinard's experience has been that premature delivery may be warded off by systematic subcutaneous injection of morphin during the days following the operation. Forty cases of hemorrhage after torsion are collected from the literature, with the history of 2 others from Daniel's personal experience.

29. **Radical Treatment of Inguinal Hernia.**—Gratschoff writes from Finland to describe a method of closing the inguinal canal which he thinks offers a number of advantages. He uses a piece of steel wire about 13 cm. long, terminating in a small perforated ball at each end. Two small hooks to hold the silk thread are soldered to the wire, which is drawn up into the shape of a bow after it has been introduced into the inguinal canal. After the hernia has been taken care of, one end of the wire is introduced through the incision and a stout silk thread is fastened to one of the hooks and passed through the end of the wire bow and then around the internal and then the external pillar, and again around them, until enough stitches have been taken. The needle is brought out through the skin and the silk is drawn taut and fastened to the other end of the wire bow. Both wire and sutures are removed by the end of the week. He has thus treated 44 patients with gratifying results.

Revue de Gynécologie, Paris.

Last indexed, XLV, page 1831.

30 (IX, No. 6.) *La leucoplasie de la vulve, du vagin et de l'utérus. F. Jayle and X. Bender.
31 *Le sarcome primitif du vagin chez l'adulte Diagnostic et traitement des tumeurs solides primitives du vagin. M. Rollin.

30. **Leucoplasia of Vulva and Vagina.**—Jayle and Bender describe the clinical and anatomic findings in 2 cases of vulvovaginal leucoplasia, reviewing at the same time 31 cases reported in the literature. The vagina was invaded in only 4 out of the 33 cases. Treatment, they state, should be by ample excision, with a plastic operation if desired. If asepsis is perfect, the scar is soft, supple and not painful. If the patient refuses an operation, the case should be supervised and great care should be taken to ward off all irritation and inflammation from saprophytic infection. The leucoplasia may, and frequently does, lead to cancer. This established fact imposes the greater necessity for total removal of the patch wherever it may be located. In the collected cases the leucoplasia was confined to the vulva in 14 cases, and epitheliomatous degeneration was manifest in 10. Only 2 cases are known of leucoplasia of the vagina only, 5 of leucoplasia of the cervix and 5 of the body of the uterus. The patients were usually in the fifties, but one woman was 30, two were 61 and one was 74. The list includes some cases published in this country, among them Weir's case, published under the heading of chronic pruritus and ichthyosis of the vulva complicated with epithelioma.

31. **Sarcoma of the Vagina.**—Rollin traces the history, diagnosis and treatment of these growths in the adult. He had occasion to remove a sarcoma the size of a nut from the vagina of a woman of 35. The lump had been noticed for five months, but caused no disturbance. It suddenly began to increase in size, with pain, temperature and swelling. The tumor readily shelled out and microscopic examination showed that it was a spindle-celled sarcoma. Only 18 similar cases are on record, he says. He summarizes them in turn. The patients were generally in the fifties, but one was a girl of 15. The tumor recurred rapidly in this case after extirpation of the primary pedunculated growth, and the patient soon succumbed. In another fatal case the patient was a primipara of 25; in another a ii-para of 30; in another a ii-para of 23; in another a primipara of 38, and in another a married woman, 19 years old, with hemorrhages for seven weeks. A small tumor on the posterior vaginal wall was removed. Fatal recurrence soon followed. The patients were cured by the operation in 6 of the cases, including a iv-para, who noticed the tumor a year before the operation. It was the size of a walnut and was located on the anterior wall of the vagina, but had caused no disturbances. In another instance the tumor in the vagina had caused no disturbance for three years, when it began to grow, ulcerate, bleed and discharge. These symptoms had persisted for three months when the tumor was removed; there has been no further trouble during the ten years since. In Menzel's case the patient, a multipara of 39, presented a large tumor on the anterior wall of the vagina. It had been noticed for three months and was removed without interfering with a seven-months' pregnancy. The growth was a round or spindle-celled sarcoma in each of these cases.

Semaine Médicale, Paris.

32 (XXVI, No. 4.) L'albuminurie orthostatique "essentielle." C. Aubertin.
33 (No. 5.) Sur la parotidite chronique muco-purulente. F. Remouchamps.

Berliner klinische Wochenschrift.

34 (XLII, No. 52.) *Zur Klinik der Pankreas-Entzündungen (inflammation). T. Brugsch and F. König.
35 *Ueber Pankreas-Erkrankungen Während des Diabetes. F. Hirschfeld.

36 Scharlachtherapie und Scharlach-Prophylaxe (serum treatment of scarlet fever). Campe.
37 Colloidal Nitrogenous Substances in Urine.—Zur Kenntnis der Alkoholunlöslichen bzw. kolloidalen Stickstoffsubstanzen im Harn. E. Salkowski. (Concluded).
38 *Epidemiologie des Abdominaltyphus. Kutscher.
39 (XLIII, No. 1.) Ueber die traumatische Entzündung des Kniegelenkes (inflammatory affection of knee). Hoffa.
40 Ueber die Gewinnung von Dysenterietoxin. H. Lüdke.
41 Ueber die Lagerung der Spirochæte pallida im Gewebe. A. Buschke and W. Fischer.
42 *Enterogene Cyanose. A. A. Hymans van den Bergh and A. Grutterink (Rotterdam).
43 *Ueber tiefe Alkohol-Cocain oder Alkohol-Stovain-Injektionen bei Trigeminus- und anderen Neuralgien. F. Ostwalt.
44 *Die Bedeutung der Röntgenstrahlen für die Behandlung der lymphatischen Sarkome. M. Cohn.
45 Antikomplemente. J. Bordet (Brussels).
46 Pneumothorax und Recurrens-Lähmung (paralysis). Lublinski.
47 Zur Therapie der habituellen Obstipation. de la Camp.

34. **Abscess in the Pancreas.**—A young butcher was suddenly affected with colic in the upper abdomen for twenty-four hours, which returned a week later. The colic then vanished, but discomfort persisted in the region and he felt ill. The bowels moved only after an enema, but the physician did not notice anything unusual in the stools. Chemical examination, however, revealed that the absorption of fat was very much disturbed. After a test meal of 1,000 gm. milk, 25 gm. butter and 100 gm. white bread, representing 49 gm. of fat (preceded by carmin to mark the test stools), the stools contained 192 gm. of moist and 63 gm. of solid substances, with 29.23 gm. of fat. Only 19.7 per cent. of the fat ingested had been assimilated. A lesion in the pancreas was assumed and the assumption was confirmed by the operation. The patient recovered after evacuation of the abscess found in the pancreas, although the absorption of fat still remained somewhat below normal. When the abdomen is opened in case of a pancreatic lesion the fatty necrosis usually attracts attention. In one of the 3 patients operated on by Brugsch and König this necrosis extended into the omentum and mesentery. It resembles melted fat, but may be absent even in case of pronounced pancreatitis, exudation taking its place. The fluid is sometimes reddish. Still more striking is the exudation into the tissues, the mesentery, colon and omentum being gorged with fluid. The engorgement is most marked in the mesenteric glands or in the glands on the mesocolon, which looked like sausages in one of their cases. Some of the engorged parts of the omentum clumped together to form apparent tumors, which were misleading until their true nature was revealed by the laparotomy. The distribution of the pancreatic effusion is also instructive, as is explained in detail.

35. **Affections of the Pancreas in Course of Diabetes.**—Hirschfeld has been studying the catarrhal affection of the pancreas which is liable to develop in diabetics, having had occasion to observe 14 such cases. The catarrhal affection of the pancreas induces an acute exacerbation of the diabetic disturbances in the metabolism; it also causes local symptoms and is further distinguished by a tendency to recurrence. He presents evidence to show that in many cases of diabetic coma some acute affection of the pancreas is probably the principal factor. He has observed coma develop in diabetics after overexertion, influenza or an operation, but in other cases, when the coma is supposedly spontaneous and has been preceded for some time by gastrointestinal disturbances, he is convinced that it is in reality due to the extension of the gastrointestinal catarrh to the pancreas. The severer the diabetes the greater the liability that the development of pancreatic colic may usher in diabetic coma, especially when the colic is exceptionally severe. This occurred in 2 out of his 14 cases. The pancreatic colic may be slight and may be confused with gallstone colic or a stomach affection, or with angina pectoris. The characteristic feature is that the glycosuria becomes aggravated during or immediately after the attacks. When other causes for the aggravation can be excluded, it is safe to assume some affection of the pancreas. He thinks that such affections are more common in all forms of diabetes than is generally recognized. The most important sign of an affection of the pancreas in a diabetic is the disturbance in circulation evidenced by the absence of polyuria after copious ingestion of water. He tested 3 of his patients in this way and found that the amount of urine was increased only from 80 to 120 c.c. after ingestion of 400 c.c. of water under conditions in which normal individuals always showed an increase of from 130 to 300 c.c. The fact that an affection of the pancreas can influence the circulation is demonstrated by the appearance of edema during pancreatic affections. He is convinced that the pancreas is probably involved in every case of diabetes.

38. **The Latest Views of Typhoid Infection.**—Kutscher reviews the recent evidence which shows that persons may harbor the typhoid bacilli in their bodies for years after an attack of typhoid fever and thus prove a source of contagion for others at any time. The bacilli seem to lurk in the gall bladder after they have vanished from all other points in the body. No means have yet been discovered of annihilating the lurking bacilli. Women seem to predominate among these chronic "bacilli-bearers." Contact infection is assuming more and more importance, and the principles of successful prophylaxis must be the same as for cholera and malaria. The chronic bacilli-bearers should be excluded from such occupations as are liable to spread infection, especially in dairies.

42. **Enterogenous Cyanosis.**—Since this subject was discussed editorially in THE JOURNAL, July 8, 1905, van den Bergh has encountered 3 more cases and describes them here at length. One patient, a boy of 9, presented sulpho-hemoglobinemia; the others were men of 31 and 51, presenting methemoglobinemia. Three other patients, women suffering from chronic obstipation, exhibited the same tendency to intense cyanosis, especially noticeable in the lips. Their blood also gave the typical spectrum for sulpho-hemoglobin. The child had stenosis of the anus, with a fistula between the urethra and the rectum. The men had suffered for years from chronic enteritis. The attacks resembled cholera in the older man, who had never been in the tropics. The younger man had served for nine years as a soldier in India. In these patients the cyanosis could be produced and banished at will by putting them on a mixed diet or by restricting them exclusively to milk. Chemical tests demonstrated that the formation of nitrites in the intestine and their absorption by the injured walls were the factors causing the transformation of the hemoglobin into methemoglobin. The nitrites could be recovered from the blood—the first time, with one exception, van den Bergh says, that substances formed in the intestinal canal have been positively demonstrated in the blood.

43. **Deep Injections of Alcohol for Relief of Neuralgia.**—Ostwalt's communications on this subject have been recently reviewed in these columns, page 390. He here reports 45 cases of severe chronic facial neuralgia cured by this simple means. He adds a little of some local anesthetic to the alcohol, and slowly injects it for what he calls the "temporary Gasserectomy." After from five to seven days he repeats the injection, if necessary, but once is usually sufficient. He follows Schlösser's technic closely and has found the procedure effectual, even for treatment of certain cases of spasmodic contracture and for sciatica.

44. **Lymphatic Sarcoma Cured by Roentgen Rays.**—Cohn has applied Roentgen treatment in 5 cases of malignant lymphoma or lymphatic sarcoma, with a complete cure in 3 cases; another patient is still under treatment and the fifth was dismissed, as the growth was too extensive for the prospect of a cure. To protect the skin as much as possible, he incloses the Crookes' tube in an impermeable cover with a small opening on one side, to which is fitted a short metal tube, likewise impermeable to the rays. They are thus conducted through the tube to the growth, and pressure from the end of the tube on the skin expels the blood. The end of the tube is applied to a different spot on the skin each time, to avoid cumulative action. He has found this tube arrangement useful also to conduct the rays through the mouth to the tonsils or base of the skull in other Roentgen-ray work. He noticed in some of his patients that the spleen became temporarily enlarged while the malignant lymphoma in the neck was being treated.

Deutsche medizinische Wochenschrift, Berlin and Leipsic.

48 (XXXII, No. 1.) Ueber die Miliartuberculose. H. Ribbert.
49 Behandlung der Lähmungen (paralysis). R. Stintzing.
50 *Syphilitische und hysterische Pseudo-Osteomalacie. H. Schlesinger.
51 *Die Leistungen und Grenzen der Lokalanästhesie. Braun.
52 *Ueber die Wirkung von Cholin-Injektionen auf die Leukocytenzahl des Kaninchenblutes. R. Werner and A. Lichtenberg.

53 *Die Quecksilberhandlung bei Augenkrankheiten. Schmidt-Rimpler.
54 Results of Compulsory Insurance Against Sickness.—Die Erfolge der Invalidenversicherung in der Heil-Behandlung von Krankheiten. M. Wagner.
55 (No. 2.) *Subcutane Milzruptur (rupture of spleen). E. Friedheim.
56 *Ein Verfahren zum Nachweis der Typhus-erreger im Blut (bacteriologic test of blood). H. Conradi.
57 Influence of Malaria on Childbearing.—Einfluss des Malariafiebers auf die Schwangerschaft, die Geburt und das Wochenbett. C. Louros.
58 *Zur Radiumbehandlung des Trachoms. E. Jacoby.
59 Altere und neuere Balsamica. H. Vieth and O. Ehrmann.
60 *Fall von Vergiftung mit Beta Eucain (intoxication). J. Kraus.

50. **Syphilitic and Hysteric Pseudo-Osteomalacia.**—Schlesinger reports the case of a merchant of 41, syphilitic for seven years, who began to develop symptoms suggesting osteomalacia, with painful paresis of the left, then of the right leg and then of the arms. Abrupt abduction of the legs caused severe pain. The tendon reflexes were exaggerated, but there were no objective disturbances on the part of the sensory apparatus of the spine. The symptoms closely resembled those which he observed in osteomalacia in two other men, except that the pains grew worse at night. Antisyphilitic medication soon cleared up the diagnosis and cured the patient. The asymmetry of the phenomena and the skipping of the trunk were important points for differentiation. His experience with another case of pseudo-osteomalacia shows that it may develop on the basis of hysteria alone. Although the symptoms of osteomalacia were typical, yet his attention was attracted by the remarkable variations shown in brief periods of time, in the interference with function and in the pains. The attention of the patient and the influence of suggestion also caused the symptoms to vary abruptly from time to time. Differentiation was completed by the discovery of hysteric stigmata and the lack of any influence from phosphorous.

51. **Local Anesthesia.**—Braun remarks in the course of this clinical lecture that spinal analgesia is probably destined to supplant mere local anesthesia for operations on the bladder and urethra. But operations on the anus and lower part of the rectum can be admirably performed under local anesthesia alone, with the exception of evacuation of periproctitic abscesses. Complete insensibility can easily be induced by injecting the anesthetic throughout the region in the shape of a cone. Children and adults who behave like children are not good subjects for local anesthesia.

52. **Action of Injections of Cholin on Rabbit Blood.**—Werner reported last year that injection of radioactivated lecithin had the same effect on rabbits as exposure to radium. He now states that injection of cholin, one of the products of the decomposition of lecithin, has a similar effect.

53. **Mercurial Treatment of Eye Affections.**—Schmidt-Rimpler advocates intramuscular injections of mercury, not only for syphilitic ocular affections, but also for certain non-syphilitic ones, such as optic neuritis, suppurative infectious processes, sympathetic ophthalmia and certain forms of detachment of the retina, especially when accompanied by evidences of choroiditis. He relates examples of his experience to illustrate the advantages of mercurial treatment in such cases.

55. **Subcutaneous Rupture of Spleen.**—Friedheim reports 2 patients cured by prompt splenectomy after the spleen had been ruptured by a kick from a horse or other accident. One was a boy of 4. There had been much internal hemorrhage in both cases, but the blood had quite recuperated by the end of the week in the adult, while four weeks elapsed before the blood returned to normal in the child.

56. **To Detect Typhoid Germs in the Blood.**—Conradi calls attention to the fact that the bactericidal property of the blood is due in part to its coagulation. By preventing the coagulation the bacteria in the blood are not interfered with, and it is possible to cultivate them. He has found that bile checks coagulation. He draws blood from the ear of the patient directly into some beef gall, to which 10 per cent. of peptone and 10 per cent. of glycerin have been added, and the whole is sterilized with steam. He generally gets from .5 to 2 c.c. of blood and distributes it in test tubes containing the gall mixture in the proportion of 1 to 3. The tubes are then set in the incubator for from ten to sixteen hours and the contents are then spread on agar plates. He was able to affirm the existence of typhoid in from twenty-six to thirty hours. In 28 cases of typhoid, the typhoid bacilli were grown from the blood in 22 cases and paratyphoid bacilli in the others. In several cases before other tests were positive.

58. **Radium Treatment of Trachoma.**—Jacoby's experience has demonstrated that radium has an unmistakable therapeutic action in trachoma, but that it is far below the results of ordinary treatment.

60. **Intoxication with Beta Eucain.**—Kraus relates that a patient requiring internal urethrotomy was injected beforehand with 10 c.c. of a 2 per cent. solution of beta eucain. He was a robust, phlegmatic man of 40. The injection was repeated the next day when he came to have the cut stricture stretched. Almost at once he felt faint and became partly unconscious, with increasing dyspnea, distress and chills, while the breathing grew shallower and shallower. The condition lasted in all for an hour or an hour and a half. The patient was able to eat then, but did not sleep much that night and found that he was somewhat forgetful for a day or so afterward. There was no actual collapse. Treatment was with wine and camphor, faradization of the phrenic nerves in the neck and inhalation of oxygen. Kraus remarks that it is the first time that any mishap has been observed from the use of beta eucain at the clinic (Lewin's Urologic Polyclinic), although it is in daily use there. He refers casually to the 2 cases of intoxication from beta eucain reported by Marcinowski. In one case the patient had a transient syncope, but he says that she was subject to fainting. In the other case, after injection of 1.5 c.c. of a 10 per cent. solution the patient exhibited tonic and clonic spasms, which gradually subsided after fifteen minutes, but were followed by stupor and weakness, the symptoms all passing away by the end of six hours. Dolbeau, he adds, has reported a similar case of intoxication after intravenous injection of beta eucain, and Simon has mentioned transient headache and vomiting in a man whose bladder had been filled with 80 c.c of a 4 per cent. solution for a Bottini operation.

Münchener med. Wochenschrift, Munich.

61 (Vol. LII. No. 50.) *Ueber die Nachweis des Röntgen-Leukotoxins im Blute bei lymphatischer Leukämie. H. Curschmann and O. Gaupp.
62 *Sahli's Desmoid Stomach Test.—Desmoidreaktion. A. Kühn.
63 *Ueber sekundäre Ovarialtumoren. J. A. Amann.
64 *Zur Behandlung entzündlicher Adnex-Tumoren. Steffeck.
65 What Does the Tonometer Record?—Was messen wir mit dem Tonometer von Gärtner? L. Raab.
66 *Convulsions Accompanying Hemorrhage in Pancreas.—Ueber ein ungewöhnliches Symptom bei tödlich verlaufender akuter Hamorrhage des Pankreas. Tomaschny.
67 Thesen fur die etiologische Statistik des Krebses (of cancer). W. Weinberg. See news item, page 52.
68 Urinal for Boys After Operations.—Urinfänger für Kinder. E. Grossmann.
69 Mental Disturbances Directly Connected with Concussion of the Brain.—Ueber Geistesstörungen im unmittelbaren Anschluss an Hirnerschütterung. K. Heilbronner. (Concluded.)
70 Surgery of Heart.—Die Chirurgie des Herzens und des Herzbeutels. H. Lindner. (Concluded.)
71 (No. 51.) Ueber die Hebotomie. A. Bauereisen.
72 *Zur Aetiologie der Eklampsie. W. Liepmann.
73 Ueber Röntgenbehandlung des Oesophagus-Krebses (cancer). W. Wendel.
74 Zur Kenntnis der Blutungen bei Polyneuritis alcoholica (hemorrhages). E. Neisser.
75 Nature of Electric Phenomena on the Skin.—Die Natur der elektrischen Vorgänge an der Haut, besonders der Finger. Sommer.
76 Der Percy-Simundtsche Telephon-Desinfektor. Müller.
77 Der Arzt als Begutachter Unfallverletzter (certificates in case of accident). Stroux.
78 *Ueber die chirurgische Behandlung der Tabes. Schüssler.

61. **Leucotoxin in Leukemic Blood.**—Under the influence of Roentgen exposures and the consequent destruction of leucocytes, a specific leucotoxin is found circulating in the blood which is able to destroy the leucocytes in animals and normal human leucocytes in the test tube. The patient taking Roentgen treatment, whose blood was examined, was a man of 60, with typical lymphatic leukemia. Under the influence of seven exposures the leucocytes dropped in sixteen days from 150,000 to 44,000.

62. **Sahli's "Desmoid" Test of Chemistry of Stomach.**—Sahli's test was given a thorough trial by Kühn, as also by Eichler, recently, and both found it extremely reliable and a

valuable acquisition to the means of obtaining information in regard to the chemistry of the stomach under natural conditions, without inflicting on the patient the discomfort of the stomach tube. (The Sahli test was described in these columns on page 1819 of vol. xliv.) He has the patient swallow a little iodoform or methylene blue wrapped in a tiny square of fine rubber tissue tied with a piece of raw catgut. If the chemical functions of the stomach are normal, the catgut is soon dissolved in the gastric secretions, and the appearance of the blue in the urine or of the iodin in the urine and saliva testifies to the normal digesting power of the stomach juices. The little bag is swallowed after a meal and the absence of any reaction is proof that the bag was either passed along before the gastric juice could act on it or that the secretory functions of the stomach are defective. Kühn gives the findings in 54 cases of various stomach affections, comparing them with those of other tests. The "desmoid" test proved invariably an accurate and delicate criterion of the presence of free hydrochloric acid in the stomach contents. The cancer cases always gave a negative response, as also severe cases of achylia.

63. **Secondary Tumors in the Ovaries.**—Amann distinguishes three varieties of secondary ovarian tumors: the edematous fibroma, the knobby carcinoma and the cystoma with fibro-carcinomatous deposits. He reviews the literature on the subject and warns that the ovary forms a peculiarly favorable soil for the development of secondary tumors in case of cancer of the stomach, breast, intestine, uterus, biliary passages or skin. The route of the metastasis is usually by dissemination of carcinomatous elements in the abdominal cavity, the peritoneum not taking up the scattered elements as readily as the ovary. The lymph and blood routes are also responsible in some cases. The metastatic ovarian cancers frequently form very large growths, entirely filling the abdomen, especially in case of young women. In all cases of neoplasms in the ovary, the stomach should be carefully examined before operating and be tested chemically. During the operation all the abdominal organs should be scrupulously investigated. The primary tumor is frequently so small that it may be easily overlooked. He has encountered 22 cases of metastatic tumors in the ovaries. In the last series of 4, the ovarian tumor was secondary to cancer in the stomach in 3 and to cancer in the colon in the other.

64. **Treatment of Inflamed Uterine Adnexa.**—Steffeck makes a principle of treating inflammatory and swollen conditions in the adnexa with conservative measures at first, rest in bed, superheated air, etc., but if operation becomes necessary he makes a vaginal incision, supplementing it by removal of the adnexa in case of chronic tumefaction. In the severest cases he removes the uterus. He has had a mortality of only 2 in 145 cases treated in this way. Omitting the cases in which a laparotomy was impossible, his mortality was only .7 per cent.

66. **Convulsions Accompanying Hemorrhage in Pancreas.**—The fatal hemorrhage in the pancreas in the case described was not diagnosed during life. The onset was accompanied by convulsions. The patient was a corpulent woman in senile dementia.

72. **Etiology and Treatment of Eclampsia.**—Liepmann has continued his researches on the placentæ of eclamptic women, his latest series including 67. He found evidence in all of them of the presence of a toxin which is not encountered in normal placentæ. It must be identical with the eclampsia toxin, as the more of the toxin that is found in the placenta the less serious the maternal eclampsia, while when there is little of the toxin in the placenta a larger amount is circulating in the maternal blood. He is convinced that the chorionic villi are concerned in its production, and that the placenta, therefore, is the place of its production. The toxin displays marked affinity for the brain cells, which are paralyzed by its action and which neutralize it. The toxin also acts most injuriously on the kidney parenchyma and next on the liver. The injury to the liver is always secondary to the intoxication. An existing albuminuria is increased by the effect of the toxin. He urges that immediate delivery, therefore, should be the rule for all cases of eclampsia. He gives diagrams comparing the mortality in the expectant and rapid-delivery methods of treatment. The expectant treatment at certain clinics gave a mortality of 30 per cent., while the mortality at others has been only 8, 2.8 and 1.8 per cent. since the rule has been followed of delivering all eclamptic parturients without delay. Saline infusion and venesection have sometimes proved useful, and also artificial respiration, according to Sylvester's method, kept up for hours when the patients were very comatose and respiration was shallow. At Bumm's clinic the lowest mortality of all, 1.8 per cent., is reported in 79 cases since April, 1904. None of the women with less than five attacks died. Others were saved who had had ten and thirteen attacks. Experiments are now under way in the effort to produce a serum for the treatment of eclampsia. (See editorial.)

78. **Surgical Treatment of Tabes.**—Schüssler advocates surgical stretching of the nerves after incision as the most rational and effectual of all surgical measures applicable to tabes. He states that tabes is always accompanied by a perineuritic or neuritic process at the periphery, and nerve-stretching is indicated. Its chief effect is in inducing hyperemia, he thinks, and he applies it at the earliest possible moment, insisting that the anatomic findings refer to the periphery the beginning of the lesion in tabes. He has thus treated 44 patients, performing 82 of these nerve-stretching operations on them after an incision. The conditions were most deplorable in a number of the cases, and one patient, much debilitated by mercury and iodid treatment, succumbed to pulmonary embolism.

Hospitalstidende, Copenhagen.

Last indexed XLV, page 1614.

79 (XLVIII, No. 33.) Appendicitistilfeldene i 25 Aar paa Kommune-Hospitalet i Copenhagen. C. Wessel.
80 (Nos. 34-35.) *Behandling af Larynx-Tuberkulose. V. S. Stein.
81 En Rhinoplastik. L. G. Digmann.
82 (Nos. 36-38.) Om den kvindelige Pseudohermafroditisme. J. Fibiger.
83 Meningitis efter Parotitis. L. Bentzon. One case.
84 (Nos. 39-43.) *Om Tuberculosis conjunctivæ (isaer Lupus conjunctivæ) og dens Behandling. K. Lundsgaard.
85 Spirochaete pallida i Milten af et syfilitisk Foster (in spleen of syphilitic infant). A. Bronnum and V. Ellermann.
86 Attitude of Physicians to Use and Abuse of Alcohol.—Vor Stilling som Laeger til Brug og Misbrug af Alkohol. P. D. Koch.
87 *Prostatahypertrofiens Behandling. T. Rovsing.
88 *Throat Troubles from Excessive Use of Speaking Voice.—Om Behandlingen og Forebyggelsen af Halslidelser fremkaldte ved professionel Brug af Talestemmen. H. Mygind.
89 Modified Vaginal and Aspirating Tube.—En lille Modifikation af de almindelige Vaginal-Rør og Saarspidser. O. Horn.
90 (No. 44.) Appendicitis og dens Behandling paa Aarhus Kommunehospital. E. Müller.
91 Sma terapeutiske Meddelelser. K. Lundsgaard.
92 *Sterilization af Laminaria. J. Kuhn.
93 (Nos. 45-47.) Action of Light Bath on Blood Pressure, etc. —Det kemiske Lysbads Virkninger paa Respiration, Blodtryk og Kredslobsbetingelser. K. A. Hasselbatch.
94 Congenital Deformities.—Om nogle medfodte Misdannelser af Extremiteterne. P. N. Hansen.
95 Ejendommelige Celler i Spinalvaesken ved et Tilfaelde af Poliomyelitis acuta (peculiar cells in spinal fluid). V. Ellermann.
96 (No. 48.) *Studier over den kroniske Gastritis: Achylia gastrica ved Lungeftisis. K. Faber.
97 Work Done by Female Patients.—Kvindelige Patienters Arbejde paa Haslev Sanatorium. O. Helms.

80. **Laryngeal Tuberculosis.**—Stein encountered 170 patients in 474 with tuberculosis of the lungs who presented symptoms of tuberculous involvement of the larynx. The most frequent symptom was hoarseness. About 77 of the patients complained of local pain and 72 of difficulty in swallowing from the first. He was able to improve the condition in 68, so that all pain and difficulty in swallowing passed away, and 8 patients were clinically cured. A number of other patients were materially relieved, although there could be no question of much improvement in their cases. When the diagnosis is assured he institutes general as well as local treatment for the tuberculosis. He commences with prolonged inhalations of menthol twice a day. This frequently proves sufficient to relieve the pain and other symptoms. It is very important to refrain from using the voice; he requires his patients to write all they have to say and not to speak at all. As a last resort he occasionally finds it necessary to use local anesthesia in the form of cocain or some similar preparation in olive oil.

84. **Tuberculosis of the Conjunctiva.**—Lundsgaard declares that when the tuberculous process in the conjunctiva is not too large for radical extirpation it should be excised into sound tissue. If the process is too large for this, but has not yet in-

vaded the bulbar conjunctiva, then it should be treated with phototherapy. If this is impossible on account of the extension of the process, then tuberculin treatment is justified. The actual cautery, curetting, etc., may be useful adjuvants, but can not be relied on for the whole treatment. The anatomic findings alone are not always sufficient for differentiation; reaction to a test injection of tuberculin is confirmatory of the tuberculous nature of the process, or inoculation of rabbits' eyes may prove decisive. His experience includes 15 cases, which he describes in detail. A number of these patients were treated at Finsen's Light Institute. In several of the cases various methods of treatment had been tried, but without results, until the process was finally arrested and the patients cured by excision into sound tissue. The results of this were always so good that he urges its general adoption as the standard procedure.

87. **Treatment of Hypertrophied Prostate.**—This article was read by Rovsing at the recent International Surgical Congress as the introduction to the discussion on this subject. He preaches that the hypertrophied prostate in itself does not require any treatment; further, that treatment is not required in more than 16 per cent. of the cases in which the enlarged prostate interferes with the free emptying of the bladder. He insists that even when hypertrophied the prostate is a useful and important organ which should not be sacrificed without compelling reasons. Systematic catheterization, he states, should always be given a thorough trial first. It is liable to improve conditions to such an extent as to amount to an actual cure. The question whether to condemn the patient to the catheter perpetually or to remove the necessity for it by an operation is a question that can be decided only by the condition of the bladder muscle. The best way to estimate the condition of the bladder muscle is by the force of the stream of urine when the catheter is introduced. If the bladder is completely paralyzed it is better to cling to the catheter, but if the bladder muscle is still functionally sufficient, vasectomy or prostatectomy should be done, according to the indications. He thinks that vasectomy deserves a better reputation than it now enjoys. He performs vasectomy in every case of soft, diffuse, parenchymatous hypertrophy of the prostate causing trouble. It is contraindicated in case of hard, fibrous hypertrophy and retention from enlargement and protrusion of the median lobe into the bladder. He has cured his patients in 60 per cent. of the 70 cases treated by vasectomy, and materially improved 30 per cent., failing to relieve in only 10 per cent. The mortality is zero, he states; the operation is performed with local anesthesia alone. He is convinced that prostatectomy is done too frequently. Too little attention is paid to the seriousness of this operation, which, he says, puts an end to all sexual life, as well as to the power of procreating. He restricts partial prostatectomy to cases of retention from enlargement of the middle lobe, without pronounced infection of the bladder, and when the patient is resistant enough. He always performs the operation by suprapubic route, which avoids injury of the urethra and rectum and exposes better the field of operation. Total prostatectomy should be reserved for cases in which there is suspicion of cancerous degeneration of the hypertrophied prostate or when there is recurring hemorrhage or abscesses. He prefers Freyer's technic. Suprapubic cystostomy should be reserved for cases in which vasectomy has proved a failure, or when there is retention with threatening infection requiring immediate intervention, or for elderly or much debilitated men, or when the bladder is paralyzed and the systematic, prolonged use of the catheter is difficult or impossible for any reason.

88. **Treatment of Throat Affections from Overuse of Speaking Voice.**—Mygind describes a series of exercises to strengthen the muscles and to teach the patients to use their voices properly, insuring ample respiration by expanding the chest and lowering the diaphragm. He does not use any local treatment except, possibly, some astringent spray, but continues the course of exercises from six to eight weeks, with five or six lessons of half an hour each every week at first and later three or four lessons. The results have been very good and permanent. He thinks that similar training should be given to every one who is planning to take up a life-work which will require much use of the speaking voice, especially teachers. He has recently had ten young women teachers take a prophylactic course of these exercises with him, and the results have been very encouraging.

92. **Sterilization of Laminaria Tents.**—Kuhn describes experiences and tests which have demonstrated that laminaria tents can be thoroughly sterilized by heating them to 115 C. for ten minutes.

96. **Achylia Gastrica with Pulmonary Phthisis.**—Faber describes the anatomic findings in 5 cases of gastric achylia in consumptives. His research on the subject of gastric achylia has demonstrated that the assumption of a purely nervous origin is untenable, as he has found evidences of chronic gastritis in all the patients who presented the symptoms of gastric achylia during life. This applies to the tuberculous as well as to the non-tuberculous cases. The causes of the gastritis may be various.

Books Received

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

LIST OF THE FELLOWS, MEMBERS, EXTRA-LICENTIATES of the Royal College of Physicians of London and of Holders of the Diploma in Public Health. Granted Conjointly by the Royal Colleges of Physicians and Surgeons. Paper. Pp. 316.

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION, Vol. XXIII. Edited by Richard H. Harte, M.D., Recorder of the Association. Cloth. Pp. 392. Printed for the Association, for sale by William J. Doran, Philadelphia, 1905.

TRANSACTIONS OF THE LUZERNE COUNTY (PA.) MEDICAL SOCIETY for the Year Ending December 31, 1905. Vol. XIII. Organized March, 1861. Paper. Pp. 278. Wilkesbarre, Pa.: E. B. Vordy Co., 1905.

UNCONSCIOUS THERAPEUTICS, or the Personality of the Physician. By A. T. Schofield, M.D., M.R.C.S. Second edition. Cloth. Pp. 317. Price, $1.50. Philadelphia: P. Blakiston's Son & Co., 1906.

DIE KOSMETISCHE UND THERAPEUTISCHE BEDEUTUNG DER SEIFE. By S. Jessner, M.D., Zweite verbesserte Auflage. Paper. Pp. 58. Price, mark .90. Wilrzburg: A. Stuber's Verlag, 1906.

STUDIES FROM THE ROCKEFELLER INSTITUTE for Medical Research. Reprints. Vol. IV. 1905. Paper. New York: The Rockefeller Institute for Medical Research.

A SPECIAL CATALOGUE OF GALVANIC, FARADIC AND SINUSOIDAL APPARATUS. 32 Pages. Illustrated. For free distribution. Chicago. R. V. Wagner Company.

NEW PATENTS.

Recent patents of interest to physicians, etc.

810848.	Surgical table. Emma B. Dill and S. F. Du Bois, Chillicothe, Ohio.
810407.	Abdominal supporter. Nuna Grose, St. Louis.
810533.	Valve mechanism for sterilizers. J. Everett Hall, Erie, Pa.
810655.	Casein Picker. A. Bertsell Ireland, Greene, N. Y.
810538.	Spatula and cork-extractor. Edwin B. Jelks, Quitman, Ga.
810769.	Inhaler. Edwin C. Jones, Woodstock, Canada.
810772.	Druggists' prescription file. Robert E. King, Beaufort, N. C.
810791.	Druggists' label holder. Newton W. McCourt and T. N. Barnsdall, 2nd, Bradford, Pa.
810784.	Stopper for ice-bags, helmets and the like. C. W. Meinecke, Jersey City Heights, N. J.
810675	Dilator. Gustav F. Richter, New York.
810676.	Poison bottle stopper. L. N. Ritten, Estherville, Iowa.
810885.	Massage applicator. Edward S. Salghman, Chicago.
810580.	Supporting apparatus for pathologic conditions requiring a sitting position. Douglas G. Storms, Hamilton, Canada.
810820.	Surgical table. James L. Suddarth, Washington, D. C.
811364.	Ozone-generator. Charles F. Birtman, Chicago.
811492.	Cot for invalids. Milton Q. Fair, Sr., Chicago.
811167.	Protector for backs and chests. M. L. Paddock, Lyons, N. Y.
811111.	Syringe. George C. Wegefarth, Baltimore.
811704.	Catamenial bandage. Edward S. Dix, New York.
812031.	Truss. George M. Farleigh, Rossland, B. C.
811713.	Invalid bedstead. L. J. Gronde, Chicago.
812133.	Surgical table. T. J. James, R. McAllister and W. S. Byram, Missoula, Mont.
812359-60.	Clinical thermometer. W. F. Fruehauf, Plainfield, N. J.
812275.	Artificial limb. Wm. M. Kespohl, Duluth, Minn.
812349.	Obstetric instrument. Frank Ledgerwood, Greenfield, Iowa.
812507.	Surgical operating engine. Wm. H. Ludewig, Rock Island, Ill.
812358.	Apparatus for use in hospitals, sick-rooms, and like places. Frederick M. Oliver, Pendleton, Ore.
811806.	Mirror for surgical, dental and like uses. Robert Walker, Newark, N. J.
812768-69-70.	Medicated tampon. Edmund M. Pond, Rutland, Vt.
812679.	Surgical appliance. Mathias Reimanns, Valkenburg, Netherlands.
812240.	Operating table. Joseph Schoettl, C. Jaeger and P. Walsleben, New York.
812686.	Syringe. Henry T. Schork and F. A. Stahl, New York.
812706.	Respirator. Joseph Warbasse, Newton, N. J.